U.S. DEPARTMENT OF ENERGY

National Nuclear Security Administration

# Governance and Management of the Nuclear Security Enterprise

**Report to Congress**
**December 2016**

**National Nuclear Security Administration**
**United States Department of Energy**
**Washington, DC 20585**

# Message from the Administrator

The National Nuclear Security Administration (NNSA) is making significant progress improving the governance and management of the nuclear security enterprise by:

(1) Strengthening national leadership attention to the nuclear security mission;
(2) Building a culture of performance and accountability at every level within NNSA, including its field offices, laboratories, plants, and sites;
(3) Strengthening the partnership between NNSA and its Management and Operating (M&O) contractors; and,
(4) Improving relations with external U.S. Government entities.

The details of these improvements are described in this Governance and Management Implementation Plan, which was prepared in accordance with Section 3137 of the *National Defense Authorization Act (NDAA) for FY 2016*. Forty-one new strategic and tactical initiatives to improve governance and management in the NNSA have been completed or are in progress. These initiatives are assigned to career Senior Executive Service managers who are held accountable by the NNSA Management Council, which is chaired by NNSA's Principal Deputy Administrator, and ultimately the NNSA Administrator.

Of the 41 initiatives, we established the following as NNSA's priorities for 2016:

(1) Improve contract structures and incentives;
(2) Implement effective and efficient field oversight;
(3) Improve stewardship of and long-term strategic planning for the laboratories;
(4) Improve NNSA policy development and administration; and,
(5) Improve coordination of site reviews and site visits.

NNSA's Federal employees and M&O partners will work together to implement these improvements and ensure the mission is efficiently and safely carried out well into the future.

This report is being provided to the following Members of Congress:

- **The Honorable John McCain**
  Chairman, Senate Committee on Armed Services
- **The Honorable Jack Reed**
  Ranking Member, Senate Committee on Armed Services
- **The Honorable William "Mac" Thornberry**
  Chairman, House Committee on Armed Services
- **The Honorable Adam Smith**
  Ranking Member, House Committee on Armed Services
- **The Honorable Thad Cochran**
  Chairman, Senate Committee on Appropriations

- **The Honorable Barbara A. Mikulski**
  Vice Chairwoman, Senate Committee on Appropriations
- **The Honorable Harold Rogers**
  Chairman, House Committee on Appropriations
- **The Honorable Nita M. Lowey**
  Ranking Member, House Committee on Appropriations
- **The Honorable Lisa Murkowski**
  Chairman, Senate Committee on Energy and Natural Resources
- **The Honorable Maria Cantwell**
  Ranking Member, Senate Committee on Energy and Natural Resources
- **The Honorable Fred Upton**
  Chairman, House Committee on Energy and Commerce
- **The Honorable Frank Pallone, Jr.**
  Ranking Member, House Committee on Energy and Commerce
- **The Honorable Michael Simpson**
  Chairman, Subcommittee on Energy and Water Development, House Committee on Appropriations
- **The Honorable Marcy Kaptur**
  Ranking Member, Subcommittee on Energy and Water Development, House Committee on Appropriations
- **The Honorable Lamar Alexander**
  Chairman, Subcommittee on Energy and Water Development, Senate Committee on Appropriations
- **The Honorable Dianne Feinstein**
  Vice Chairman, Subcommittee on Energy and Water Development, Senate Committee on Appropriations

If you have any questions or need additional information about this implementation plan, please contact me or Mr. Clarence Bishop, Associate Administrator for External Affairs, at (202) 586-7332.

Sincerely

[redacted]

Frank G. Klotz
Under Secretary for Nuclear Security
Administrator, NNSA

# Message from the Secretary

This implementation plan sets forth the Department of Energy (DOE) actions taken and planned in response to the recommendations of the Congressional Advisory Panel on Governance of the Nuclear Security Enterprise (Governance Panel) and other external reviews, such as the Commission to Review the Effectiveness of the National Energy Laboratories (CRENEL).

Since the last report to Congress in May 2015, DOE has been steadily building a more strategic relationship between NNSA Federal program managers and Management and Operating (M&O) contractors and interagency partners. NNSA is also strengthening the working relationship among the Department's three Under Secretaries, sharing best practices, and renewing the focus on strategic partnerships.

DOE is reestablishing the Federally Funded Research and Development Center (FFRDC) principles originally established during World War II and applying them in the context of modern governance standards. The goal is to build a stronger, more collaborative, and more mission-focused culture throughout the Department of Energy (DOE).

The Department is managing crosscutting functions through a new network of councils, boards, and working groups, such as the National Laboratory Directors' Council, the National Laboratory Policy Council, and the National Laboratory Operations Board. NNSA and other elements of DOE now work together on matters of national and international importance through these and other structures, such as the plutonium disposition and domestic enrichment working groups, the Emergency Incident Management Council, and the Cyber Council.

DOE recognizes that to be successful the improvements must be long lasting, and clearly understood. As a result DOE/NNSA is on track to create new policy documents and update existing ones to reflect these and other changes in the governance structure. Many of the new initiatives will take longer to put in place. And yet, as the Governance Panel points out, cultural change takes time, persistence, and follow-up. DOE/NNSA will continue to evaluate whether the actions taken to date and in the future are effective.

This report discusses actions already taken and initiatives planned to improve the governance and management of the nuclear security enterprise and identifies the specific organizations accountable for implementation.

DOE is responsible to the American people for stewarding the enterprise that sustains the nuclear deterrent, providing nuclear propulsion for the U.S. Navy, and combating nuclear and

radiological threats at home and abroad. Each of these mission pillars is critical to U.S. national security, there is no higher priority within the Department. DOE looks forward to sustaining and improving the governance of these missions for the long term.

Sincerely,

[redacted]

Ernest J. Moniz

# Executive Summary

NNSA's Governance and Management Implementation Plan was developed in response to a range of recommendations from the Governance Panel, CRENEL, and other external reviews of the nuclear security enterprise. The plan catalogs the progress we have already made to improve the stewardship of the enterprise, and describes the initiatives being taken to further enhance performance.

Governance reform is among the highest priorities of the Department's senior leaders, each of whom has significant experience in nuclear security, science, technology, management, and policy. Led by Secretary Ernest Moniz, they are all committed to enacting the structural and procedural changes needed to execute the nuclear security mission more efficiently and effectively.

Although the Governance Panel and other advisory bodies correctly identified areas in need of improvement, the Department's leadership team has the advantage of building on an already impressive level of performance within the nuclear security enterprise. Across its three mission pillars — maintaining a safe, secure, and effective nuclear deterrent; providing naval nuclear propulsion; and preventing, countering, and responding to the threats of nuclear proliferation and terrorism — DOE/NNSA has demonstrated its indispensable role in preserving the Nation's security. Its performance has improved significantly over the past two years in part as a result of specific reforms to its governance and management system. That said, work remains to be done.

## Accomplishments

DOE/NNSA is continuing to meet its commitments to the Department of Defense (DoD) and other U.S. Government partners, with particular emphasis on meeting nuclear stockpile requirements. Currently there are four active weapons progams to support the Navy and the Air Force, the W76-1 Life Extension Program (LEP), the W88 ALT with CHE refresh, the B61-12 LEP, and the W80-4 LEP.

DOE/NNSA has produced more than three-quarters of the life-extended W76-1 warheads needed by the U.S. Navy. Through the efforts of the entire complex, the W76 LEP overcame earlier setbacks and is now proceeding on schedule and within budget. When this LEP is finished in 2019, the warhead will have an additional 30 years of service life, and the total number of W76s in the stockpile will have been reduced by almost 50 percent.

The scope of the W88 alteration (ALT) for the Navy was expanded in 2014 to address a newly discovered aging problem in the conventional high explosive (CHE), discovered as part of the annual surveillance process. The renamed W88 ALT with CHE refresh program is now in the process of developing a new baseline schedule and budget, which will be completed in 2017, and expects the first production unit in 2019. DOE/NNSA also continues to execute the B61-12 LEP for the Air Force, which will add at least 20 years to the life of the system and consolidate four variants of the B61 bomb into one. This program remains within budget and on schedule

for delivery of the first production unit in 2020. The W80-4 LEP, also for the Air Force, is in the early stages of the its life extension design process, with an expected first production unit in 2025.

DOE/NNSA has improved its relationship with DoD. As a one of the statutory members of the Nuclear Weapons Council (NWC), NNSA ensures that the NWC fully informed of all issues affecting management of the nuclear weapons stockpile and supporting infrastructure. This increased openness has been one of the central elements of the closer working relationship with DOD. NNSA plays a major role implementing the NWC Strategic Plan. This effort incorporates the joint DoD/DOE nuclear weapon systems modernization strategy into a long-range plan to align DOE and DoD programmatic initiatives through 2040. This plan is just one example of cooperation between DOE and DoD to identify modernization objectives and stabilizing the workload over time at NNSA's laboratories and plants.

In addition to supporting the stockpile, DOE/NNSA works to reduce the threat of nuclear proliferation and terrorism by minimizing and eliminating weapons-usable nuclear material around the world. In 2015 alone, DOE/NNSA removed approximately 130 kilograms of highly enriched uranium (HEU) and plutonium from Kazakhstan, Uzbekistan, and Switzerland. The latter two are now among 31 countries (plus Taiwan) that are free of all HEU due to DOE/NNSA's efforts.

Last year DOE/NNSA down-blended additional HEU to achieve a cumulative total of 150 metric tons of excess U.S. weapons-usable HEU – approximately 6,000 weapons' worth of nuclear material – removed from possible weapons use. DOE/NNSA also helps strengthen nuclear safeguards, export controls, and nonproliferation and arms control regimes to reduce nuclear proliferation risks.

In 2015, NNSA's technical experts supported the U.S. Government in negotiations with Iran that led to the Joint Comprehensive Plan of Action. This agreement blocks off all pathways for Iran to develop a nuclear weapon and puts in place stringent measures to ensure Iran's compliance with all provisions of the agreement.

Finally, Naval Reactors (NR) maintains and operates the reactors on the Navy's 82 nuclear-powered warships (aircraft carriers and submarines), constituting more than 45 percent of its major combatants. NR continued its record of operational excellence by providing the technical expertise that enabled the Nation's nuclear-powered fleet to safely steam more than two million miles during 2015. NR is also responsible for the design, development, production, and deployment of new reactor plants. In 2016, both reactors on the new Gerald R. Ford-class aircraft carrier achieved criticality. These reactors are the first new design aircraft carrier propulsion plants built in 40 years. Work also progressed in developing the reactors and fuel for the U.S. Navy's Ohio-class Replacement Program.

Governance and management reforms facilitated these programmatic achievements and continue to improve NNSA performance across the enterprise. These reforms include reorganizing several offices to enhance performance; clarifying roles and responsibilities; developing and promulgating clear and coherent policy; and implementing repeatable

processes to ensure that Headquarters elements, field offices, laboratories, plants, and sites make integrated, risk-informed decisions. DOE/NNSA has incorporated these processes into a variety of new DOE orders and policies, and NNSA supplemental directives and policies. These actions are discussed in more detail in this implementation plan.

To build the Future Years Nuclear Security Program plan, NNSA implemented a disciplined, corporate approach that included revamping its Planning, Programming, Budgeting, and Evaluation (PPBE) process. Led by the NNSA Office of Management and Budget and the Office of Cost Estimating and Program Evaluation (CEPE), the updated process addresses many prior Government Accountability Office (GAO) recommendations for improving NNSA's PPBE process. These include validating budget estimates, creating an integrated priority list for each program, relying on an independent capability for resource analysis, and documenting decisions. The new PPBE approach uses sound financial management principles to integrate Secretarial priorities with input from field and program offices, resulting in a budget and program plan that balances requirements, risks, and funding. This new process was used to build NNSA's FY 2016 and FY 2017 budget submissions and is incorporated into a revised PPBE business operating procedure.

NNSA has also taken a number of steps to simplify its budget structure, reduce the number of internal accounting codes, and implement improvements in financial integration across the nuclear security enterprise. NNSA has reduced the number of internal Budget and Reporting codes by 30 percent since 2011. NNSA is exploring ways to further simplify its financial management procedures while at the same time improving transparency into program and project performance. NNSA is also working to improve the quality and consistency of financial information tracked across the enterprise. Improved data will provide NNSA's cost estimators, program managers, senior leaders, and oversight authorities with the insight needed to support analysis and decision-making and will increase confidence in NNSA's stewardship of taxpayer dollars.

The use of Analyses of Alternatives (AoA) represents another critical tool to improve NNSA's project and program management. NNSA recently aligned the its now standardized AoA process with DOE policy to have AoAs conducted independently from the organization expected to execute or oversee work. The new approach establishes a disciplined AoA process, follows GAO best practices, and creates analytically rigorous underpinnings for NNSA's acquisition decisions. It requires oversight by organizations outside of the program office as well as an independent CEPE review to ensure all viable alternatives are evaluated without bias. The new process has already been used on six AoAs since 2015 and will be applied to emerging projects such as the plutonium modular strategy.

NNSA is committed to further reforms that will continue to improve its performance. Drawing from the recommendations of internal and external sources and reviews, NNSA is pursuing several initiatives to strengthen performance by instilling a more mission-driven management culture. These measures include (1) strengthening the national leadership's attention to the nuclear security mission; (2) building a culture of performance and accountability at every level within NNSA and its laboratories, plants, and sites; (3) strengthening the partnership between

NNSA and its M&O contractors; and (4) improving relations with other U.S. Government agencies and departments.

## Strengthening National Attention to the Nuclear Security Mission

Despite the importance of nuclear deterrence to the security of the United States, national attention to the nuclear security mission had waned since the end of the Cold War at all levels. This development has been identified as one of the key reasons that the nuclear enterprise at both DOE and DoD had reached a tipping point. Internal and external reviews at the DoD concluded that the enterprise was out of any remaining operating margin. Replacement of most delivery systems as well as the life extension programs at DOE/NNSA were "late-to-need." Over the course of the last several years, this Administration has reestablished high level attention to the enterprise, particularly by the Secretaries of Defense and Energy. The new nuclear employment guidance, and the internal and external reviews tasked by former Secretary of Defense Hagel, brought new attention and increased funding to the enterprise. All levels of leadership reinforced the importance of the nuclear deterrence. Both the Secretaries of Defense and Energy have repeatedly reinforced the importance of nuclear deterrence, which Secretary of Defense Carter has called the bedrock of U.S. security.

Secretary of Energy Moniz vigorously defended DOE/NNSA's budget to the Congress and worked tirelessly to persuade OMB to provide additional funding for key initiatives. These include the life extension programs, the next generation of stockpile stewardship, advanced computational capacity, and recapitalization of the DOE/NNSA's aging infrastructure. As a result of this attention, the growth in deferred maintenance has been stopped and life extension programs are on track.

DoD and DOE have also worked closely together to integrate planning for the DoD delivery system schedules with the DOE/NNSA life extension schedules. What has resulted is an aggressive, tightly integrated schedule to deliver the necessary capability to assure our allies and deter our adversaries. DOE and DoD have also worked to strengthen the NWC, including holding meetings chaired by the Deputy Secretaries of Defense and Energy. To ensure the nuclear mission remained a top Administration priority, the National Security Council, with the NWC, developed a process to provide adequate funding across the enterprise. While much has been accomplished, much remains to be done in the next decade; keeping the enterprise and the modernization strategy on track will require continued support from future Administrations and bipartisan support from Congress.

The Governance Panel also recognized that many in Congress were not focused on DOE/NNSA or the nuclear security mission. As a result DOE/NNSA has conducted a series of high level briefings for Members of Congress and their staffs, and held two high profile events to commemorate the success of the Stockpile Stewardship Program and the science and engineering that underpin national and international treaty monitoring and verification to help increase awareness. DOE/NNSA will continue to join with DoD in briefing members and staff of the relevant House and Senate appropriation and authorization committees and subcommittees to demonstrate the critical nature of DOE/NNSA's mission. To help maintain

Departmental leadership in the nuclear security enterprise, DOE will work with the President-elect's transition team to underscore the importance of DOE's entire portfolio and the continued need for DOE and NNSA leaders with significant national security and nuclear expertise.

## Building a Culture of Performance and Accountability at Every Level

DOE/NNSA is organized into program, functional, and field offices, and the proper interplay between these elements is crucial to the effective, efficient execution of the mission. As the day-to-day representatives of DOE/NNSA in the field, much of DOE/NNSA's policy and direction is implemented through field office managers (FOM) and their staff. The FOMs serve as DOE/NNSA's frontline managers and bear responsibility for achieving program objectives in a manner that is safe and secure as well as legally, ethically, and fiscally responsible. Given their roles as the risk accepting and authorizing officials for site activities, the FOMs now report directly to the Administrator. This initiative was undertaken specifically to reinforce accountability across the enterprise.

DOE/NNSA decision-making and analysis occur through a hierarchy of councils, boards, and other advisory bodies. The Administrator chairs the NNSA Council, which is composed of the laboratory directors, plant managers, the Nevada National Security Site Director, and other Federal, laboratory, and plant senior managers, including the FOMs. The Management Council is the NNSA's senior internal federal forum for strategy, policy, planning, prioritization, and risk management. Subordinate standing and ad hoc working groups provide integrated solutions for the Management Council's consideration. An additional body, the Operations Board, is a senior-level advisory board was established to address enterprise-wide operational issues. A Laboratory or Plant Chief Operating Officer co-chairs the Operations Board along with the Associate Administrator for Safety, Infrastructure, and Operations.

In addition to establishing effective decision-making bodies, DOE/NNSA has reorganized some of its core elements to enhance safety oversight and promote efficiency. In 2015, DOE/NNSA combined the Office of Infrastructure and Operations, the Office of Safety and Health, and the Nuclear Materials Integration division to form the Office of Safety, Infrastructure, and Operations, which reflects the interdependencies between the Infrastructure and Safety elements.

Additionally, the Office of Defense Nuclear Nonproliferation was restructured to improve its flexibility in responding to future changes in the global security environment. As proposed in the President's FY 2016 Budget Request, the *Consolidated Appropriations Act, 2016* (P.L. 114-113) realigned all DOE/NNSA funding for preventing, countering, and responding to global nuclear dangers under the Defense Nuclear Nonproliferation appropriation, strengthening existing collaborations. The budget restructuring was also needed to clarify roles and responsibilities within these mission areas, and positioned NNSA and the rest of the department to improve DOE's emergency management capabilities. The Offices of Emergency Operations and Counter Terrorism were also restructured to ensure that DOE was fully capable of responding to and managing all hazards emergencies.

DOE/NNSA is also making important changes to strengthen program management and integration, including improvements to organizational structures, processes, and coordination with laboratories and plants. For example, the Office of Defense Programs has created the Office of Major Modernizations to improve the management of modernization activities, commodities, and new construction and infrastructure projects. To enhance program performance and integration, DOE/NNSA has appointed Commodity Managers for uranium, plutonium, and tritium, each of whom is accountable for all commodity-related activities (e.g., research and development, manufacturing, and production). DOE/NNSA will also be adding a lithium program manager as well as a Program Executive Officer for commodities. This is in addition to the recently established Program Executive Officer for life extension programs, a positon that was filled earlier this year, by a superbly qualified retired senior military officer.

DOE/NNSA is committed to strengthening and improving its workforce and is developing a Human Capital Management Plan that will support staffing analyses and planning processes across the agency and also addresses recruitment, training, and qualification programs; career and leadership development; and succession planning. This process relies in part on the results of the Federal Employee Viewpoint Survey (FEVS), which serves as a barometer for gauging workforce perceptions and morale, assessing cultural changes, and measuring the effectiveness of changes in management practices.

NNSA increased its FEVS participation from 44.2 percent in 2014 to 68.8 percent in 2016 and showed a 9.4 percent increase in employee satisfaction (overall 65.3 percent) with NNSA. These results move NNSA above the government-wide average. For two years in row, NNSA made significant gains in its "Best Places to Work in the Federal Government" rankings. In 2016, NNSA improved its score in the index by nearly 12 points to a score of 62.5. Just two years previously, that number was 44.7. NNSA leaders will continue to use these results to identify opportunities for additional improvements. NNSA will also bring its human resources (HR) function more in line with the overall Department by standing up its shared services center. Each of the three DOE Under Secretaries will then have a consolidated HR service center to deliver services more efficiently.

## Strengthening the Partnership between NNSA and its M&O Contractors

NNSA relies on private industry and academia partners for the critical science and business expertise that is necessary to operate the nuclear security enterprise. M&O contracts have proven to be the Department's preferred model for NNSA's diverse and unique operations. These contracts, specifically described in the Federal Acquisition Regulations, give the government responsibility for programmatic formulation and setting the regulatory standards under which the M&Os implement the government's direction. These contracts also give university and industry partners responsibility for determining how to meet technical and scientific challenges inherent to program execution.

NNSA is strengthening the strategic partnership with its M&O contractors in a variety of ways. For example, NNSA is engaging with laboratory directors and plant managers through the DOE Laboratory Operations Board, DOE Laboratory Policy Council, and the NNSA Council and

Operations Board. To maximize the benefits of these partnerships and reinvigorate the FFRDC relationship, NNSA has taken steps to improve laboratory stewardship and long-term strategic planning, improve contract structures and incentives, strengthen Laboratory Directed Research and Development, and reduce or eliminate burdensome requirements, while ensuring that the DOE regulatory authority is properly exercised.

NNSA is working with its three national laboratories to expand and improve the corporate strategic planning process to incorporate the full scope of the laboratories' work. Accordingly, NNSA has worked with each of the laboratory directors, Headquarters program managers, and FOMs to establish a laboratory strategic planning function in the DOE/NNSA Office of Policy. This new process includes an annual strategic discussion in which each laboratory director presents his or her strategic vision and highlights the complex factors and competing objectives that each national laboratory must balance. The laboratory directors also address longer-term issues that are vital to the success of the laboratories' missions, such as infrastructure and recruiting and retention.

A number of cumbersome business practices identified internally and by the Secretary of Energy Advisory Board's Task Force on the DOE National Laboratories have also been eliminated or revised to streamline approval processes, increase efficiency, and reduce the burden these practices place on the M&O community. These changes include improvements in compensation and benefits management as well as labor negotiations, and a streamlined conference management process.

## Improving Relationships with Other U.S. Government Departments and Agencies

Executing NNSA's diverse missions requires collaboration with a number of external departments and agencies across the U.S. Government, and the health of these relationships factors heavily in mission performance. One such collaboration exists between NNSA and DoD, which share responsibility for the U.S. nuclear weapons stockpile. The central mechanism by which DOE/NNSA and DoD manage priorities and establish nuclear weapons modernization objectives is the NWC, which is also responsible for delivering to the President three classified, annual reports on the status of the nuclear deterrent signed by the Secretaries of Defense and Energy. As part of the annual surveillance process NNSA instituted briefings by the three national security laboratory directors and the Commander of U.S. Strategic Command to the Defense and Energy Secretaries.

In addition to DoD, DOE/NNSA also fosters partnerships with the Departments of State, Homeland Security, Commerce, and Treasury, the Intelligence Community and NASA. DOE/NNSA's strategic partnership projects, formerly known as "Work for Others," support improved conventional warfighting capabilities, responses to nuclear and radiological threats, and analysis of foreign developments and trends. These collaborations benefit not only interagency partners but also NNSA as an important draw for recruiting and retaining scientists, engineers, and other professionals to support NNSA and the broader national security missions.

DOE/NNSA's Office of Strategic Partnership Programs oversees interagency collaborations and identifies opportunities to improve the overall process.

In 2010, the Secretaries of Energy, Defense, and Homeland Security and the Director of National Intelligence established the Mission Executive Council (MEC) to identify strategic priorities and critical capabilities relating to national security, many of which reside at the Department's laboratories, plants, and sites. The NNSA Administrator serves as the co-chair of the MEC. As part of this process, NNSA is working to ensure that its core technological capabilities, equipment, and facilities are supported for both NNSA and interagency activities. The stewardship and long-term planning process for the laboratories will inform this process.

National Nuclear Security Administration

# GOVERNANCE AND MANAGEMENT OF THE NUCLEAR SECURITY ENTERPRISE

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# List of Acronyms and Abbreviations

| | |
|---|---|
| AMP | Asset Management Program |
| AoA | Analysis of Alternatives |
| CAPE | Cost Assessment and Program Evaluation |
| CAS | Contractor Assurance System |
| CEPE | Cost Estimating and Program Evaluation |
| CHR | Contractor Human Resources |
| CRENEL | Commission to Review the Effectiveness of the National Energy Laboratories |
| CFO | Chief Financial Officer |
| CO | Contracting Officer |
| CRO | Chief Risk Officer |
| CSO | Chief Security Officer |
| CTA | Central Technical Authority |
| DNFSB | Defense Nuclear Facilities Safety Board |
| DoD | Department of Defense |
| DOE | Department of Energy |
| FEVS | Federal Employee Viewpoint Survey |
| FFRDC | Federally Funded Research and Development Center |
| FOM | Field Office Managers |
| FPD | Federal Project Directors |
| G&M | Governance and Management |
| GAO | Government Accountability Office |
| HCMP | Human Capital Management Plan |
| HEU | Highly Enriched Uranium |
| IAP | Implementation Assessment Panel |
| LDRD | Laboratory Directed Research and Development |
| LDRP | Leadership Development Rotational Program |
| LEP | Life Extension Programs |
| LOB | Laboratory Operations Board |
| MDI | Mission Dependency Index |
| MEC | Mission Executive Council |
| M&O | Management and Operating |
| NDAA | National Defense Authorization Act |
| NES | Nuclear Explosive Safety |
| NGFP | NNSA Graduate Fellows Program |
| NNSA | National Nuclear Security Administration |
| NWC | Nuclear Weapons Council |
| PMRC | Project Management Risk Committee |
| POG | Project Officer Groups |
| PPBE | Planning, Programming, Budgeting, and Evaluation |
| ROSA | Report on Stockpile Assessments |
| SBPP | Safety Basis Professional Program |

| | |
|---|---|
| SEAB | Secretary of Energy Advisory Board |
| SIAP | Site Integrated Assessment Plan |
| SMP | Safety Management Programs |
| SPP | strategic partnership projects |
| STRATCOM | U.S. Strategic Command |

# I. Legislative Language

This report responds to language set forth in the *National Defense Authorization Act (NDAA), 2016* (P.L. 114-92) Section 3137, Governance and Management of Nuclear Security Enterprise, wherein it is stated:

*...(b) IMPLEMENTATION PLAN. —*

*(1) IMPLEMENTATION ACTION TEAM.—(A) The Secretary and the Administrator shall jointly establish a team of senior officials from the Department of Energy and the National Nuclear Security Administration to develop and carry out an implementation plan to reform the governance and management of the nuclear security enterprise to improve the effectiveness and efficiency of the nuclear security enterprise. Such plan shall be developed and implemented in accordance with the National Nuclear Security Administration Act (50 U.S.C. 2401 et seq.), the Atomic Energy Defense Act (50 U.S.C. 24 2501 et seq.), and any other provision of law.*

*(B) The team established under paragraph (1) shall be co-chaired by the Deputy Secretary of Energy and the Administrator.*

*(C) In developing and carrying out the implementation plan, the team shall consult with the implementation assessment panel established under subsection (c)(1).*

*(2) ELEMENTS.—The implementation plan developed under paragraph (1)(A) shall address all recommendations contained in the covered study (except such recommendations that require legislative action to carry out) by identifying specific actions, milestones, timelines, and responsible personnel to implement such plan.*

*(3) SUBMISSION.—Not later than March 31, 16 2016, the Secretary and the Administrator shall jointly submit to the appropriate congressional committees the implementation plan developed under paragraph (1)(A).*

# II. Introduction

The National Nuclear Security Administration's (DOE/NNSA) May 2015 Report to Congress, *National Nuclear Security Administration Comments on the Final Report of the Congressional Advisory Panel on the Governance of the Nuclear Security Enterprise*, highlighted the activities and improvements made in response to the Congressional Advisory Panel on Governance of the Nuclear Security Enterprise's (Governance Panel) findings and recommendations. These improvements included reorganizing DOE around three Under Secretaries and implementing management and performance through the Under Secretary for Management and Performance as a core element of the broader DOE mission; strengthening construction project management; creating NNSA Commodity Managers for special materials with full-scope accountability; and establishing the DOE/NNSA Office of Cost Estimating and Program Evaluation (CEPE).

The *FY 2016 NDAA* directed DOE and NNSA to develop a joint implementation plan that would identify additional improvements to the governance of the nuclear security enterprise. This implementation plan identifies those additional initiatives being pursued, which are responsive

to the recommendations of the Governance Panel and other recent external and internal reviews. Those advisory bodies identified a number of leadership and cultural challenges confronting the Department, including NNSA. Consistent and sustained action is necessary to align the organization around safe and secure mission accomplishment. Sustainable improvement also requires clear accountability and authorities within the Federal workforce and strategic alignment based on trust with NNSA's Management & Operating (M&O) contractors to improve the overall performance of the nuclear security enterprise.

After a careful review of the recommendations of the Governance Panel, the Commission to Review the Effectiveness of the National Energy Laboratories (CRENEL), and other advisory bodies, the Department has established the initiatives described in this plan to strengthen NNSA and its execution of the nuclear security mission.

# III. Governance and Management Initiatives

The NNSA *Enterprise Strategic Vision*, issued in August 2015, is the top-level guide for the NNSA Governance and Management (G&M) Implementation Plan. It describes the NNSA activities and cross-cutting support functions that must be performed to execute the nuclear security mission successfully. NNSA initiatives to address governance and management reform have been aligned with the following high-level themes in this G&M implementation plan:

- Strengthening national leadership attention to the nuclear security mission;
- Building a culture of performance and accountability at every level within NNSA and its laboratories, plants, and sites;
- Strengthening the partnership between NNSA and its M&O contractors; and,
- Improving relations with other U.S. Government departments and agencies.

New initiatives are identified in bold font within each section. Initiatives, schedule milestones, and responsible offices are summarized in Attachment 1.

## *A. Strengthening National Leadership*

The nuclear security mission is a key priority of the Secretary of Energy. The Secretary has devoted a significant amount of his time and energy to advancing this mission. Having a Secretary of Energy who is committed to the nuclear security mission has been highlighted as "essential" in numerous external reviews. NNSA has benefitted greatly from the strong leadership attention of the Secretary and Deputy Secretary in performing its national nuclear security mission. Ensuring that this attention continues will require vigilance and commitment from both future Congresses and future administrations.

The Secretary has established clear responsibility and accountability for the three major mission areas of the Department — energy and science, nuclear security, and management and performance — through the three Under Secretaries, all of whom act in an integrated fashion in accordance with DOE policy. For nuclear security, the NNSA Administrator has clear

authority to execute the nuclear security missions under the *NNSA Act (50 USC 2401)*, consistent with the Secretary's policies.

Although attention to the nuclear enterprise in both DoD and DOE has increased over the last several years, there is still significant work to be done to implement the nuclear modernization strategy to replace aging nuclear delivery systems, repair and recapitalize aging infrastructure and extend the life of existing nuclear weapons. To help develop a broader understanding of the nuclear security mission and the modernization strategy, DOE/NNSA has conducted a series of high level briefings for members of Congress and their staffs, and held two high profile events to commemorate the success of the Stockpile Stewardship Program and the science that underpins national and international treaty monitoring and verification. DOE/NNSA will continue to join with DoD in briefing members and staff of the relevant House and Senate appropriation and authorization committees and subcommittees to demonstrate the critical nature of DOE/NNSA's mission. To help maintain Departmental leadership in the nuclear security enterprise, DOE will work with the President-elect's transition team to underscore the importance of DOE's portfolio and the continued need for DOE leaders with significant national security expertise.

**(Action 1: NA-1.1) NNSA will continue to deliver educational briefings to congressional members and staff. These briefings will expand in 2016 and will continue through the transition to the next Administration and Congress.**

## *B. Building a Culture of Performance and Accountability*

A culture of performance and accountability is grounded in a partnership between the Federal workforce and M&O contractors that is mission-focused and based on trust, where each plays a different role but seeks the same outcome for the enterprise. When properly constructed and managed, M&O contracts provide necessary flexibility without imposing overly burdensome requirements, allowing NNSA's M&O partners to deliver world-class results.

Federal and M&O leadership must be committed to a culture that embraces safety, security, and quality as integral mission components. Accordingly, many of the governance and management initiatives in this section focus on improving alignment between the mission and mission support functions, as well as building better relationships among Federal and M&O partners and field and Headquarters entities by clarifying roles and responsibilities.

### 1. Clarifying Roles, Responsibilities, and Authorities

NNSA is an active participant in DOE's effort to develop uniform Departmental approaches in many key areas, including program and project management, disposition of excess facilities, and cyber and physical security. The Department has established a series of crosscutting boards, councils, and working groups, with senior NNSA representation, to develop integrated solutions to complex, DOE-wide problems.

***Functional Integration***

The Department's crosscutting boards, councils, and working groups are improving alignment and functional integration throughout DOE. Improved functional integration is perhaps best exemplified in the Department's enhancements to security, with the establishment of Chief Security Officer (CSO) positions in each of the three Under Secretaries' organizations. The CSOs meet routinely to discuss common challenges and solutions and advise the Secretary regarding any needed policy reforms. NNSA's Chief of Defense Nuclear Security serves as the CSO for the Under Secretary for Nuclear Security.

Additionally, NNSA's Office of Management & Budget participates in all DOE-wide financial and accounting deliberations in support of DOE's Chief Financial Officer (DOE-CFO). NNSA's Office of Acquisition and Project Management is an integral part of the Secretary's project management improvement initiatives, including the Project Management Risk Committee (PMRC) and the Energy Systems Acquisition Advisory Board. NNSA has also consolidated and clarified responsibilities for the Office of Safety, Infrastructure, and Operations, which has played an integral part in the infrastructure assessment and prioritization study.

DOE/NNSA Headquarters is also working to strengthen relationships between, field offices, and M&O, contractors through a number of functional and crosscutting entities. For example, the DOE/NNSA Office of General Counsel works closely with the field office counsels and facilitates timely reviews and approvals at appropriate organizational levels. An NNSA General Counsel meeting is also conducted regularly to discuss crosscutting legal issues among Federal, plant, and laboratory legal personnel.

NNSA human resources personnel meet at least quarterly with their M&O counterparts and began meeting annually as a group in 2016. NNSA and the DOE Chief Financial Officer (CFO) sponsor semi-annual meetings with NNSA M&O financial officers. NNSA contracting officers in the field and at Headquarters meet monthly and will expand the interaction to include M&O counterparts at least once a year.

**(Action 2: NA-APM) NNSA will begin periodic enterprise-wide meetings for contracting officers and Contractor Human Resources personnel in FY 2016. (Complete)**

***Corporate Decision Making***

NNSA integrated decision-making and analysis occur through a hierarchy of councils, boards, and other advisory bodies in which issues are weighed with respect to costs, benefits, and risks. DOE/NNSA decision-making and analysis occur through a hierarchy of councils, boards, and other advisory bodies. The Administrator chairs the NNSA Council, NNSA's most senior body, which is composed of the laboratory directors, plant managers, the Nevada National Security Site Director, and other Federal, laboratory, and plant senior managers, including the FOMs.

The Management Council, chaired by the Principal Deputy Administrator is the NNSA's senior internal federal forum for strategy, policy, planning, prioritization, and risk management. Subordinate standing and ad hoc working groups provide integrated solutions for the Management Council's consideration. An additional body, the Operations Board, is a senior-

level advisory board was established to address enterprise-wide operational issues. A Laboratory or Plant Chief Operating Officer co-chairs the Operations Board along with the Associate Administrator for Safety, Infrastructure, and Operations.

***Organizational Alignment***

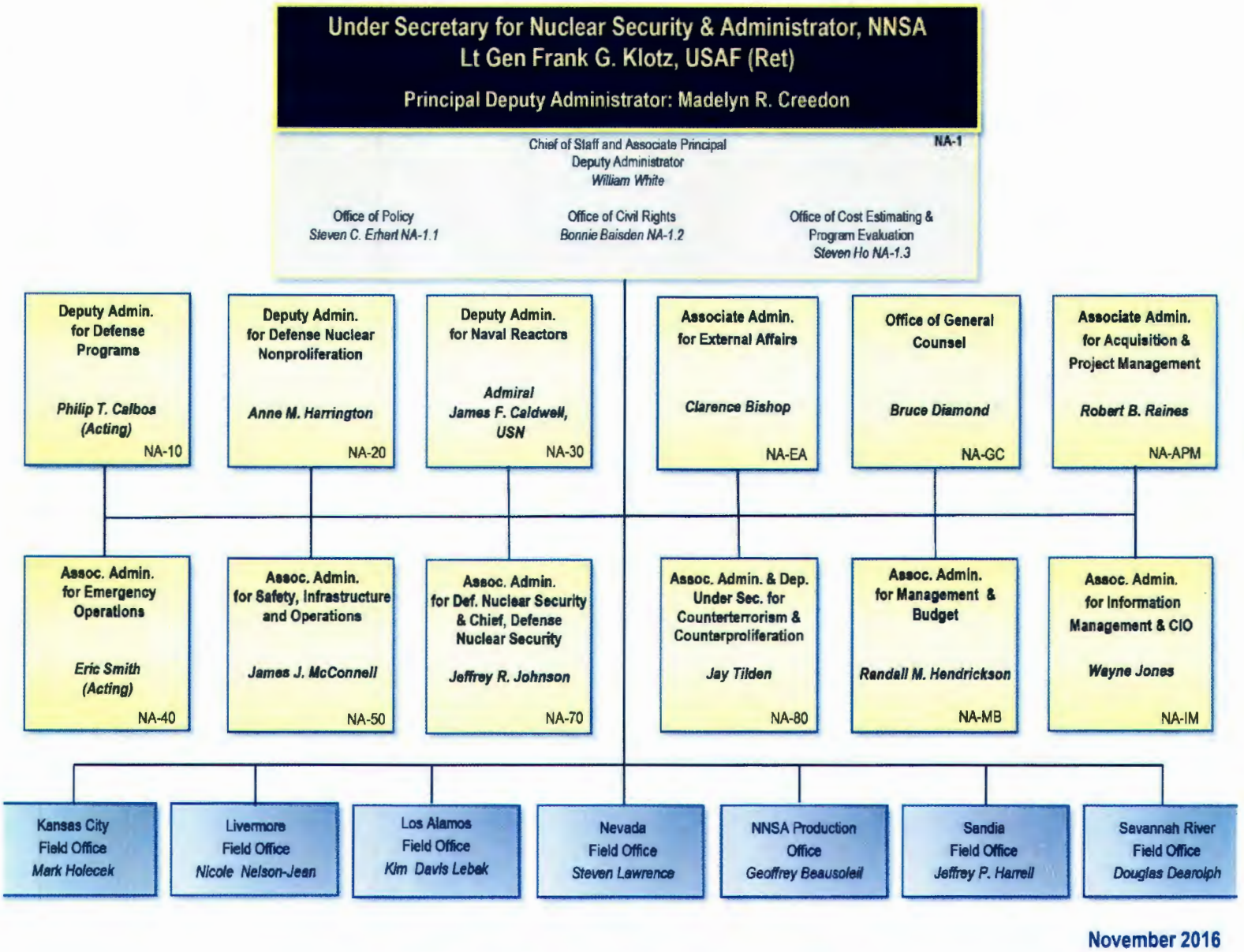


***Figure 1. DOE/NNSA Organizational Chart***

Key NNSA organizational components include program, functional, and field offices. Headquarters program offices focus on the main NNSA mission areas and interface with external organizations and customers. The NNSA mission program offices are: Defense Programs (NA-10), Defense Nuclear Nonproliferation (NA-20), Counterterrorism and

Counterproliferation (NA-80), and Naval Reactors (NA-30). Program offices are responsible for program policy, direction, prioritization, and funding.

NNSA mission support functional offices include Emergency Operations (NA-40); Safety, Infrastructure, and Operations (NA-50); Nuclear Security (NA-70); External Affairs (NA-EA); General Counsel (NA-GC); Acquisition and Project Management (NA-APM); Management and Budget (NA-MB); Office of Policy (NA-1.1); Office of Civil Rights (NA-1.2); CEPE (NA-1.3); and Information Management (NA-IM). These organizations also participate in policy, direction, prioritization and funding activities in support of the nuclear security mission.

NNSA's line managers have responsibility to meet assigned program objectives safely and securely as well as in a legally and fiscally responsible manner. Primary responsibility rests with the line manager closest to the activity, who has all of the resources needed to meet a specific requirement or objective. In many cases, this is an NNSA Field Office Manager (FOM) who reports directly to the Administrator.

In accordance with Headquarters program direction, FOMs are responsible for on-site Federal oversight and administration of the M&O contract. NNSA FOMs serve as line management, site-level mission integrators and as the risk-accepting and authorizing officials for activities at the site on behalf of the Administrator. As the day-to-day representatives of NNSA in the field, much of NNSA's policy and direction is implemented through field office staff. Field offices rely on frequent communication with their M&O partners and a strong and transparent Contractor Assurance System (CAS) to form the foundation of their oversight relationship with the M&O. See Section III.B.4 for additional detail on field oversight.

Recent NNSA organizational improvements include creation of the Office of Policy and the Office of CEPE (see section III.B.9). The Office of Policy reports to the Administrator and formulates strategy, policy, and technical advice. This office will drive various initiatives and work processes designed to improve NNSA's consistency, efficiency, and reliability in the execution of its missions. To clearly document the missions, functions, responsibilities, and authorities of its organizations, NNSA will update existing organizational mission and function statements to align with the NNSA *Enterprise Strategic Vision* and, working with the Office of Management and Budget, put in place clear operating and policy documents.

**(Action 3: NA-MB) NNSA will update organizational mission and function statements in FY 2017.**

***Role Clarification***

NNSA is clarifying NNSA policy and guidance across all lines of operations and business. NNSA has been conducting a comprehensive review of the internal policy development process and is revising the Internal Policy Requirement Document, Supplemental Directive 251.1. This will simplify and automate the process, replacing NNSA policies with existing DOE, Office of Personnel Management, or widely accepted U.S. Government and/or commercial standards where applicable. This effort will also identify policies that need to be retained, those that require revision or elimination, and areas where policy and guidance are missing. This initiative along with updated Mission and Function Statements and a new Management System

Description (MSD) will delineate functions, responsibilities, and authorities to improve NNSA's corporate governance and management.

**(Action 4: NA-MB) NNSA will prepare a plan by late 2016 to streamline the NNSA policy process and identify the policies that need to be created, revised, or eliminated. (Complete)**

NNSA is developing an MSD that will serve as the overarching governance and management framework that is aligned with the DOE Strategic Plan and other applicable Departmental policies. The MSD will provide a high-level description of the NNSA organization, management approaches, responsibilities, and processes that are needed to meet requirements and execute the NNSA mission. References will be made to NNSA policies, implementing procedures, and other documents required to manage the business of NNSA. The document will also describe the operations and relationships among corporate decision-making and advisory boards, line management, program, and functional and support offices. The MSD will meet the quality assurance program requirements of DOE O 414.1D, Quality Assurance, and embrace principles consistent with ISO 9001, Quality Management Systems – Requirements.

**(Action 5: NA-MB) NNSA will issue the MSD in FY 2017.**

## 2. Strengthening Risk Management

Formal and informal risk management is performed throughout the Department, most extensively in nuclear safety, security, program and project management, and M&O contractor oversight. Risk factors that could have an unacceptable impact on the mission or the welfare of the public are identified along with the actions that can be taken to address and mitigate the risks. In the past, some reviews have criticized the Department for being too risk averse and applying high-risk standards to lower-risk operations. By contrast, other reviews have criticized the Department's oversight of activities at all risk levels, often asserting that the oversight is inadequate.

To improve risk management, the Secretary has established the Department's first-ever Chief Risk Officer (CRO), who is responsible for advancing a systematic, analytical approach to identifying, assessing, and managing risks across the Department. The CRO is evaluating the current systems being used to analyze strategic and functional risks, including political, technical, program, project, safety, security, business, economic, and reputational risks to identify where changes are needed. The goal is to ensure that consistent processes are used to evaluate risks and enable risk-informed decision making at the appropriate level. An Initial Risk Profile will be prepared in FY 2017, and annually thereafter. The profile will foster risk-based decision making while ensuring the mission is carried out efficiently and effectively and ensure the safety of the workforce and the public.

**(Action 6: DOE) The Initial Risk Profile will be in place in FY 2017.**

### *DOE Directives and Exemptions*

DOE has initiated a comprehensive review of how, when, and why it establishes its own set of requirements, directives, policy memoranda, and acquisition letters. Early in 2016, the Laboratory Operations Board (LOB) convened a workshop, co-chaired by a Federal and a

laboratory employee, to identify specific challenges and solutions for the directives process. The workshop identified DOE requirements that are duplicative of State or National consensus standards and identified where there are opportunities for laboratories to use those standards in place of DOE requirements. The effort is also evaluating proposals to streamline the processes for developing directives and other requirements.

DOE orders are written to establish policies and requirements for a broad range of activities, but application of the orders typically requires tailoring for site-specific needs. The Department has a review and approval processes in place to provide the flexibility needed to manage the associated risks when a field office determines that an exemption or equivalency to a DOE directive is warranted. In most cases, review and approval remains at the field office level. Field offices are best positioned within the Department to apply DOE directives appropriately to the scope of work and risk at the site. Approval authority is retained at higher levels based on the potential risk. Examples of risk requiring higher approval would be nuclear explosive and nuclear security requirements. NNSA has an effective process for requesting and granting exemptions to the most significant nuclear safety requirements needing Central Technical Authority (CTA) approval. The CTA is a senior technical leader whose concurrence on the most significant decisions ensures that the decision maker is supported with a documented basis for the decision. The CTA also supports Under Secretary line organizations on nuclear safety matters, such as the interpretation of nuclear safety requirements.

If external organizations attempt to drive overly conservative or permissive interpretations, the CTA can be engaged to provide an authoritative position and take the argument to the Administrator for resolution. The DOE Order exemption approval process will continue to be improved to ensure that requests are processed in a timely manner and that risks and costs are carefully considered.

Commercial standards and industry best practices are allowed and encouraged where applicable to the Department's operations. For example, pursuant to DOE directives, the Kansas City National Security Campus implemented an industrial standards-based pilot, now known as the "Kansas City Model." Some aspects of this model have been incorporated at other facilities, although it is important to note that industrial standards are not always sufficient for or compatible with high-hazard, high-consequence nuclear operations and other technical activities.

In 2015, NNSA issued a comprehensive revision of the Nuclear Explosive Safety (NES) directives. Implementation of the revised NES directives appears to be resulting in improved safety of nuclear explosive operations, one of the highest-risk activities across the Department, and fewer disagreements over whether the underlying requirements are met.

**(Action 7: NA-50/ NA-10) In FY 2017, NNSA will conduct a performance-based effectiveness review of the revised NES directives and make any additional revisions as warranted.**

***NNSA and the Defense Nuclear Facilities Safety Board***

NNSA develops coordinated responses to Defense Nuclear Facilities Safety Board (DNFSB) recommendations and inquiries to address risks and support risk management. The

Administrator and Principal Deputy Administrator hold routine discussions with Board members to exchange information and maintain mutual awareness of ongoing issues. In addition, senior Department and DNFSB staff members routinely meet to exchange more detailed technical information, maintain open lines of communications, and manage risk and expectations related to ongoing inquiries, findings, and recommendations. These interactions are particularly important to understand the potential schedule and cost impacts associated with resolving safety issues and to coordinate with the DNFSB on the scope and timing of its nuclear project design reviews.

**(Action 8: NA-APM, NA-50) In 2016, NNSA worked with other DOE offices and the DNFSB to develop a process to improve collaboration on nuclear project design reviews.**

***Risk Analysis***

The recent revision to DOE Standard (STD) 3009, *Preparation of Nonreactor Nuclear Facility Documented Safety Analysis*, introduced the use of probabilistic assessments as part of the safety analyses for nuclear facilities. Rather than basing accident analyses on consequences alone, this revision of DOE STD 3009 discusses a new approach that would evaluate potential accidents through the lens of risk, defined as the product of the probability of an accident and its consequences.

The incorporation of risk may ultimately lead to the classification of controls based on qualitative and semi-quantitative risk analyses. This is similar to the approach used by the Nuclear Regulatory Commission for nuclear fuel fabrication facilities (10 CFR 70). For the recent revision to DOE STD 3009, NNSA collaborated with other DOE offices to provide implementation training to assist in efficiently transitioning to the revised standard. Near-term efforts will include publishing a new Accident Analysis Handbook that will further discuss a risk analysis approach consistent with DOE-STD-1628-2013, *Development of Probabilistic Risk Assessments for Nuclear Safety Applications*, and other national and international standards.

**(Action 9: NA-50) NNSA will assist other DOE offices in the development of an Accident Analysis Handbook.**

NNSA has strengthened its analytical expertise and processes for assessing risks, especially for nuclear and other high-hazard functions through its implementation of the Safety Basis Professional Program (SBPP). This recently updated program provides training to develop new safety professionals and will soon serve as a method for continuous training of current safety professionals. The SBPP establishes a community of practice among safety basis professionals and includes a network of technical experts that can provide additional insight and evaluation for safety analyses.

**(Action 10: NA-50) In FY 2016, NNSA implemented a revision to the SBPP that expands it to include a continuous training program for the incumbent workforce. (Complete)**

## 3. Continuous Improvement

NNSA is using input from a variety of sources, including internal and external feedback, to improve management systems and process. For example, the Federal Employee Viewpoint

Survey (FEVS) serves as a barometer for gauging workforce perceptions and morale, assessing corporate culture, and measuring the effectiveness of changes in management practices. NNSA increased its FEVS participation from 44.2 percent in 2014 to 68.8 percent in 2016 and showed a 9.4 percent increase in employee satisfaction (overall 65.3 percent) with NNSA. These results move NNSA above the government-wide average. For two years in row, NNSA made significant gains in its "Best Places to Work in the Federal Government" rankings. In 2016, NNSA improved its score in the index by nearly 12 points to a score of 62.5. Just two years previously, that number was 44.7. The NNSA leadership will continue to focus on improving areas with relatively lower scores and reiterate the importance of the FEVS to the workforce.

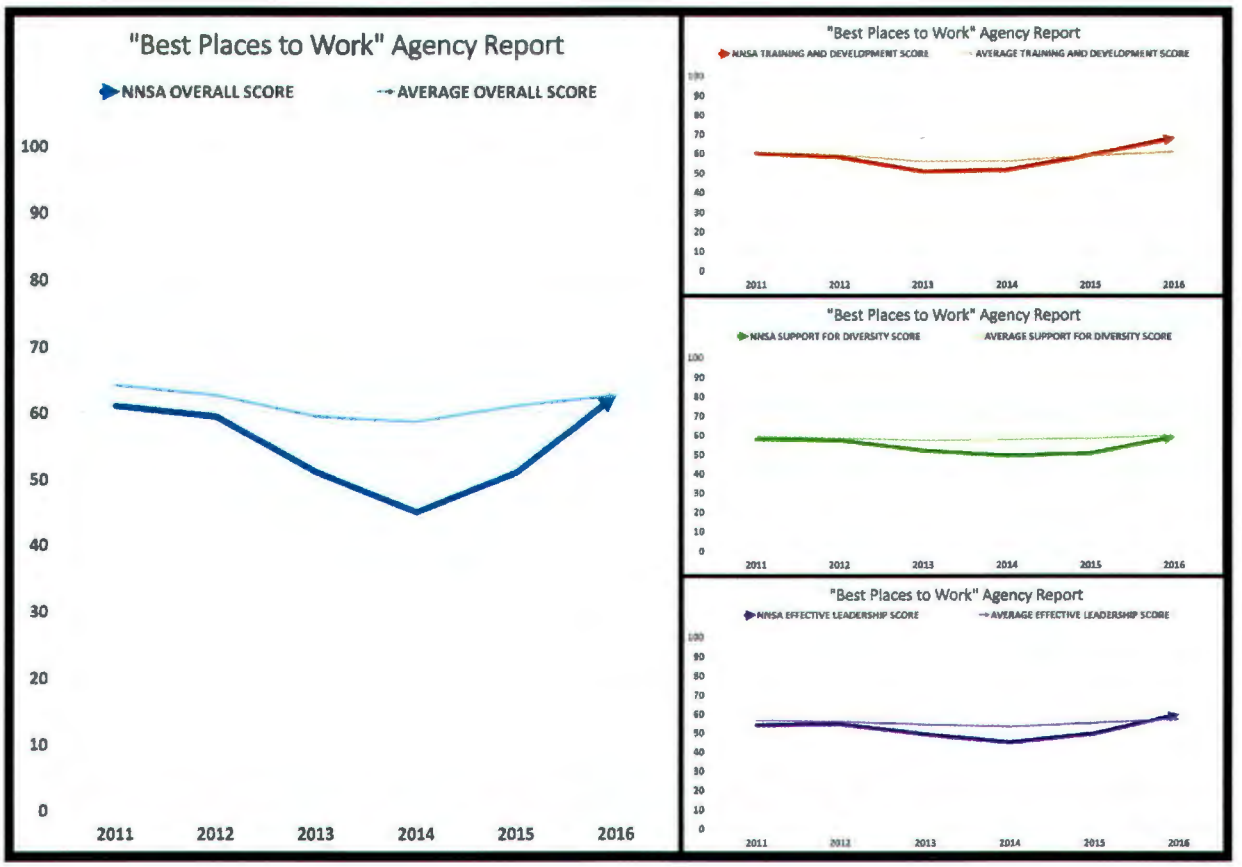


*Figure 2. Improvement in DOE/NNSA Rankings in the Annual FEVS Survey*

Success in improving NNSA governance and management lies in unity of effort across the highly talented team of Federal employees, the M&O workforce, and other partners. NNSA initiatives to reform governance and management are discussed routinely with employees through various internal communication channels, including "All Hands" meetings. NNSA will coordinate with external review boards on effectiveness reviews to determine if the improvement initiatives are having the desired effect in improving performance.

**(Action 11: NA-1.1) NNSA will develop a communication strategy in FY 2017 to ensure that Federal employees and other stakeholders are knowledgeable of the G&M Implementation Plan initiatives, intent, and priorities.**

NNSA will track governance and management actions to completion, develop metrics to measure effectiveness, and solicit feedback from Federal employees and M&O partners. NNSA will also receive periodic independent evaluations of effectiveness from an Implementation Assessment Panel (IAP) made up of professionals from the National Academy of Sciences and the National Academy of Public Administration. The scope of the Implementation Assessment Panel is described in Attachment 2.

In addition, the Secretary has asked the Secretary of Energy Advisory Board (SEAB) to establish a sub-group under its existing SEAB National Laboratory Task Force to remain informed about the progress being made to implement policy and process changes in how the Department manages its national security (NNSA) laboratories. The task force will report periodically on their observations about the pace and nature of the progress being made to clarify authorities and responsibilities, simplify oversight requirements, adopt best practices, and transfer laboratory know-how to the other government agencies and the private sector.

**(Action 12: NA-1.1) The Secretary and the Administrator will join with the IAP in reporting to Congress on progress being made to improve governance and management of the NNSA, as required by the *FY 2016 NDAA*.**

## 4. Implementing Effective and Efficient Field Oversight

NNSA is a multi-site organization with six large M&O partners and a cadre of Federal employees at the field offices who administer the contracts and conduct oversight at those sites. In 2014, the Secretary established the Enterprise Assessment Office to consolidate and manage all independent safety and security assessments within the Department. This reform eliminated duplication and provided a clear distinction between operational awareness and independent oversight responsibilities. In 2015, NNSA combined the Office of Infrastructure and Operations, the Office of Safety and Health, and the Nuclear Materials Integration division to form the Office of Safety, Infrastructure, and Operations. This merger has resulted in more efficient management and implementation of the NNSA infrastructure and safety programs. The Office of Safety, Infrastructure, and Operations maintains operational awareness on safety matters, provides technical support to the FOMs, and assists the FOMs in maintaining a consistent application of nuclear and non-nuclear safety requirements in NNSA.

### *Field Office Safety and Security Reviews*

NNSA uses a Site Integrated Assessment Plan (SIAP) to identify those Safety Management Programs (SMP) and security reviews that will be performed each fiscal year. Organizations such as the Office of Safety, Infrastructure, and Operations and the Office of Defense Nuclear Security work in conjunction with the field offices to identify which reviews will be conducted and when they will be scheduled. This coordination results in a consolidated schedule across all field offices and with resources assigned based on expertise and functional area. Some of the

necessary compliance reviews are provided by the associated Headquarters personnel working on behalf of the field offices, which allows field office technical safety staff more time to focus on performance-based oversight activities.

This model of SMP and security oversight began midway through FY 2015 and has resulted in more collaboration between Headquarters and field office staff, better communication concerning implementation expectations, and greater understanding of field office concerns and perceived policy gaps. The expectations for the SIAP will be included in the improved site governance policy documents discussed below.

***Site Governance Model***

The CAS will continue to serve as a system for the contractor to manage performance consistent with contract requirements. Under this system, the oversight of activities with potentially high consequences is given higher priority and greater emphasis. A DOE working group has been reviewing how the various offices operate CAS at the laboratories under their purview and is developing a policy document that articulates high-level CAS principles to help apply them more uniformly across the enterprise. NNSA is in the process of updating its site governance model to track the DOE Office of Science model more closely and use peer reviews to analyze the strength of the CAS systems. Specifically, based on successes within the Department and other lessons learned, NNSA is currently improving its site governance model to consist of three separate but linked systems that provide insight into mission performance.

The improved site governance model will be composed of three interactive and complementary systems which involve: (1) the M&O site, lab, or plant partner operating the site; (2) the M&O site, lab, or plant partner's corporate parent(s); and (3) the Federal NNSA team, to include program, functional, and field office personnel. The level of Federal involvement will be driven by the degree and impact of issues that an M&O partner is having relative to executing the mission, the magnitude of risks, site hazards, and work complexity. The entities must share data generated from oversight activities to allow each partner to look for positive and adverse indicators and opportunities for improvement. The governance systems will be transparent and enable efficiencies for a collaborative peer review process to evaluate the effectiveness of the overall governance process.

The specific actions to implement the new site governance model include a Department-wide CAS policy statement, a supplemental directive to DOE O 226.1B, *Implementation of DOE Oversight Policy,* implementing guidance, and procedures to fully implement the new process. Staffing needs in support of the new governance model will be continuously assessed as the site governance process matures.

**(Action 13: NA-50, FOMs) The new site governance documents will be in place by the end of 2016.**

## 5. Implementing Workforce Best Practices

NNSA has implemented several best practices for shaping and building a workforce that has the technical, leadership, and business acumen to accomplish NNSA's missions. Succession

planning is being improved through strategic hiring, training, and qualification programs to ensure a competent and technically qualified workforce.

Leadership development programs like the NNSA Graduate Fellows Program (NGFP) and the Department's newly-formed Leadership Development Rotational Program (LDRP) provide a pipeline for future senior-level career Federal managers.

- The NNSA Graduate Fellows Program is designed to attract and develop exceptional next-generation leaders from among the best and brightest graduate students from top-tier universities across the United States.
- The Leadership Development Rotational Program provides opportunities for employees from across the Department and its laboratories to obtain diverse experiences. The program also promotes greater understanding of management challenges and opportunities through rotational opportunities at the laboratories and Federal sites.

In FY 2015 and FY 2016, NNSA provided sufficient funding to support all requested Federal staff training requirements. This effort represented a doubling of the training budget for Federal employees over the past four years.

**(Action 14: NA-MB) NNSA is committed to maintaining the future training budget at a sufficient level to accommodate Federal training needs.**

NNSA is developing a Human Capital Management Plan (HCMP) that will be used to shape the organization over time, correct skill mix issues, prioritize staffing hires, and communicate critical staffing needs to Congress and other appropriate review entities. This corporate plan will be derived from the staffing plans from each individual organization within NNSA and will be based on statutory and regulatory requirements, mission needs, best management practices, and updated NNSA policies such as the site governance and oversight policy.

**(Action 15: NA-MB) The HCMP will be issued in FY 2017.**

Staffing analysis to date demonstrates that NNSA is currently under staffed in several critical areas, including engineering and scientific positions, and recent efforts to increase staffing levels are not keeping up with retirements and other unanticipated attrition. NNSA continues to seek a modest increase in the statutory staffing cap to ensure that the Federal workforce is adequate to manage NNSA's significantly increasing workload. The data in the Federal Salaries and Expenses account through the end of FY 2016 for NNSA is as follows:

- 1,644 NNSA Federal employees are "on board" out of 1,690 authorized;
- The average employee age is 50 years old, with approximately 17.6 years of experience;
- 20 percent of the Federal workforce is eligible to retire now, and 38 percent will be eligible by end of calendar year 2020;
- The majority of technical employees have advanced degrees (masters, juris doctor, Ph.D., or Sc.D); and,
- The current Federal employee attrition rate is approximately 9.5 percent per year.

These demographics indicate that attrition and the consequent need to fill vacancies with appropriately skilled employees will continue to be a challenges over the next several years.

**(Action 16: NA-MB) NNSA will be prepared to brief the staffing analysis results to external stakeholders in 2017.**

## 6. Improving Program Management and Integration

NNSA integrates and synchronizes activities and funding across programs, mission support functions, and operating sites through the NNSA management and planning hierarchy, the PPBE process, and the Management Council's activities.

To improve overall program performance and integration, as well as bridge the gap between project and program management, NNSA has appointed Commodity Managers for uranium, plutonium, and tritium. Each manager is fully accountable for all commodity-related activities (e.g., research and development, science and technology, testing, manufacturing, production, and project management) to ensure they support mission requirements. NNSA is working with labs, plants, and sites to improve coordination and collaboration at the program level.

NNSA's Office of Defense Nuclear Nonproliferation has established the Laboratory Science Council as a platform for senior leaders from Headquarters and the labs, plants, and sites to exchange information and make recommendations regarding nonproliferation strategic direction, goals, and resources. Issues raised during Laboratory Science Council meetings have resulted in the creation of joint Headquarters-laboratory working groups that study issues and develop actionable recommendations for senior management. Current working groups are addressing cybersecurity, risk management, and metrics for nonproliferation training and education activities.

NNSA's Offices of Defense Nuclear Nonproliferation, Emergency Operations, and Counterterrorism and Counterproliferation have completed three significant actions to improve program management and integration in the area of nuclear and radiological threat reduction:

- The Office of Defense Nuclear Nonproliferation adopted a new organizational structure based on its core competencies. This change improves the office's flexibility in responding to future changes in the global security environment and aligns its structure with how the national security laboratories themselves are organized.
- The NNSA budget structure was revised by NNSA and Congress to align all three NNSA nuclear and radiological threat reduction programs under the Defense Nuclear Nonproliferation appropriation. This change will strengthen existing collaborations and improve program effectiveness. In 2015, NNSA also released *Prevent, Counter, and Respond – A Strategic Plan to Reduce Global Nuclear Threats,* which describes how the three lines of effort work together to execute NNSA's integrated threat reduction strategy. This report will be updated annually; the 2016 update was released in March 2016.
- A number of functions were transferred from the Office of Emergency Operations to the Office of Counterterrorism and Counterproliferation. This reorganization consolidates

all threat assessment and incident response assets involving radiological and nuclear material and facilities, as well as all international counterterrorism and emergency response capacity-building activities, into a single organization. It also allows the Office of Emergency Operations to focus exclusively on supporting the development of the Department's all-hazards Emergency Management Enterprise.

NNSA's Office of Defense Programs is developing a multi-year initiative known as "Enhanced Management" that will later be adopted by other offices as appropriate. Office of Defense Programs enhancements, along with other Departmental management initiatives, are already creating a positive impact by aligning accountability and responsibility with authorities and providing state-of-the-art management tools for Defense Programs Federal Program Managers.

Under Enhanced Management, the Office of Defense Programs has restructured several existing offices — the Office of Research, Development, Test, and Evaluation (RDT&E), the Office of Stockpile Management, and the Office of Decision Support — to clarify roles and responsibilities and formed two offices — the Office of Systems Engineering and Integration and the Office of Major Modernization Programs — dedicated to acquisition and improved program and technical management. The Office of Research, Development, Test and Evaluation retains responsibility for a wide range of RDT&E programs, while the Office of Stockpile Management is now more narrowly focused on warhead sustainment, surety, technology maturation, and production support across the enterprise. The Office of Decision Support has expanded responsibilities related to decision support planning and execution and strategic communications.

The Office of Major Modernization Programs was formed to improve the management of modernization activities, including warhead life extension programs (LEPs) critical nuclear enterprise commodities, as well as new construction and infrastructure improvements. The newest organization, the Office of Systems Engineering and Integration, was formed specifically to provide senior executive-level attention to Systems Engineering and Integration policy and processes for Defense Programs. The Office of Systems and Engineering and Integration provides a pool of qualified systems engineers to ensure these initiatives are properly managed within the Defense Programs portfolio.

The President recently signed a Presidential Policy Directive to replace National Security Presidential Directive (NSPD)-28 and the NWC recently issued a joint DOE/DoD Phase 6.X Guide, which formalizes high level interagency policies regarding nuclear weapons program governance, management, and execution. Accordingly, Defense Programs is now updating several internal policy documents related to program management and engineering. These documents, combined with new guidance from the Secretary on construction program management, form the policy basis for Enhanced Management.

Defense Programs published a Program Execution Instruction for management of its programs and is reviewing, updating, and completing contractually binding engineering and program management policy requirements for the weapons complex. All documentation associated with these requirements is located in the Defense Programs Business Process System.

**(Action 17: NA-10) NNSA will update internal Office of Defense Programs program management policy and procedures in FY 2017.**

Defense Programs has developed a phased training approach for Federal staff to ensure their skills remain current. In phase one, the office instituted process-specific mandatory quarterly training on changes to management policies and associated processes. In phase two, Defense Programs is instituting a new individual training and certification program modeled after DoD programs and in conjunction with the Defense Acquisition University. Defense Programs Federal employees will be certified in a three-tier system (apprentice, journeyman, master) in fields including program management, systems engineering, life-cycle logistics, and science and technology management.

**(Action 18: NA-10) NNSA will implement the two-phase training program by the first quarter FY 2018.**

## 7. Sustaining Base Capabilities in the Enterprise

NNSA's ability to achieve programmatic goals is dependent upon a safe and reliable infrastructure. The condition of nearly two-thirds of NNSA's infrastructure is less than adequate to meet the mission, as determined through a recent enterprise-wide assessment of infrastructure conditions. More than 50 percent of NNSA's facilities are over 40 years old, nearly 30 percent date to the Manhattan Project era, and 12 percent are excess (meaning no longer in operation). In addition to the risk to mission execution, this aging infrastructure poses an increasing risk to the safety of workers, the public, and the environment. To maximize the impact of limited infrastructure funding, NNSA is taking steps to improve infrastructure planning and management tools, accelerate disposition of excess facilities where possible, and reduce deferred maintenance.

NNSA has adopted the use of improved management tools that support data-driven, risk-informed, infrastructure investment decision-making. With NNSA's new planning process and tools, infrastructure investment decisions are based on the consequence of failure (i.e., an asset's importance to the mission and the difficulty of replacing it) and the likelihood of failure (i.e., an asset's condition). Information from these tools will serve as a roadmap for meeting general purpose infrastructure needs. This roadmap, known as the Master Asset Plan (MAP), will prioritize and sequence all NNSA major capital investment needs, including construction, disposition, recapitalization, and maintenance over a 25-year period. The new MAP process draws on the DOE Office of Science's proven infrastructure strategic planning process and will inform the Department's funding request for capital investments.

In 2016, NNSA will:

**(Action 19: NA-1.3) Conduct a review of specific capabilities required to meet strategic commitments and to understand how these capabilities and their associated capacities drive infrastructure demands; (Complete)**

**(Action 20: NA-50) Finalize the Mission Dependency Index (MDI) tool to measure the consequence of asset failure; (Complete)**

**(Action 21: NA-50) Migrate existing asset inventory and condition data to the BUILDER tool to improve understanding of an asset's likelihood of failure; (Complete)**

**(Action 22: NA-50) Increase the use of the award-winning G2 Program Management System to track all infrastructure scope, schedule, and cost metrics;**

**(Action 23: NA-50) Expand the use of Asset Management Programs (AMPs) that increase NNSA's buying-power by consolidating the procurement of building systems that need to be replaced throughout the enterprise (e.g., roofs, HVACs) under a single strategic contract vehicle;**

**(Action 24: NA-50) Conduct MAP Deep Dives at all sites (Complete) leading to the production of the first NNSA MAP; and,**

**(Action 25: NA-50) Begin reporting of indirect infrastructure funding to better understand the full cost of NNSA infrastructure operations and maintenance. (Complete)**

The Secretary is leading a renewed focus on the Department's infrastructure management that includes reducing deferred maintenance. The Secretary formed the National LOB in 2013 to provide an enterprise-wide forum to engage DOE National Laboratories and programs in a joint effort to identify opportunities for improving the effectiveness and efficiency of operations. One of the highest priorities that the LOB identified was the need to focus on revitalizing the Department's general purpose infrastructure to better support mission activities. Following direction from the Secretary, the Department adopted a policy to halt further increases in deferred maintenance across the enterprise.

The LOB-led effort resulted in significant Department-wide improvements to the rigor and consistency of infrastructure assessments, allowing more credible and reliable data for decision makers at all levels. This year the focus has been on further developing an annual infrastructure status report that provides an enterprise-wide view of risks and opportunities on a timeline that will inform budget formulation and defense. Both of these efforts will continue under the leadership of the newly-formed Infrastructure Executive Committee, which consists of line managers and facilities experts from DOE programs, labs, plants, and sites. This committee has been charged with providing an annual update to the Department's leadership on the state of general purpose infrastructure and presenting enterprise-wide prioritized infrastructure investments.

**(Action 26: NA-50) Consistent with the direction from the Secretary related to this effort, in FY 2016, absent unforeseen events, there will be no increase in the deferred maintenance backlog above the FY 2015 end-of-year deferred maintenance level of $3.7 billion.**

NNSA's highest facility disposition funding priorities are to stabilize degraded process-contaminated facilities, characterize their hazards and conditions, remove hazardous materials, and place them in the lowest-risk condition possible with the available resources. While process-contaminated facilities pose the greatest hazards, other facilities also pose risks to workers, the public, and the environment due to structural degradation, industrial contamination, and increased vulnerability to fire. Surveillance and maintenance of systems essential to safety require personnel to enter these excess degrading facilities, potentially

placing these workers at risk. NNSA will focus resources on managing the highest risks these excess facilities pose to the mission, workers, the public, and the environment. NNSA is addressing these risks by funding site-proposed projects within the Infrastructure and Safety program. Significant risks were abated in FY 2014 and FY 2015 based on available funding, but much more work is needed.

In addition, in early 2015 the Secretary directed the establishment of an Excess Contaminated Facilities Working Group led by the LOB. The working group developed and executed an enterprise-wide data collection effort to obtain updated cost and risk assessments to deactivate, decontaminate, decommission, and demolish excess facilities. The updated data from the working group was used to define the scope of the challenge and identify options for how the Department can better prioritize excess facilities. The working group is also developing policies to institutionalize a corporate approach and updating and validating the data it has gathered. The group is finalizing a report on its work as requested in the *FY 2016 NDAA*.

**(Action 27: NA-50) In 2016, NNSA will dispose of two high-risk, contaminated facilities at Los Alamos National Laboratory and position the Bannister Road property in Kansas City for transition to the private sector.**

NNSA funding requests to reverse the decline of NNSA infrastructure, correct safety issues, and eliminate deferred maintenance are reflected in the annual budgeting process. NNSA's strategic infrastructure planning processes and tools have been used to mitigate risk and maximize the impact of limited funding for new buildings, capital and equipment upgrades, and corrective and preventive maintenance while balancing short-term and long-term priorities.

Despite these efforts, the state of NNSA's infrastructure continues to be a significant challenge. Effectively addressing the problem of inadequate funding for aging infrastructure, which has persisted for over 20 years, will require the cooperation and attention of both the Congress and the Administration and the continued focus of NNSA and DOE leadership to ensure adequate support.

NNSA is responsible for disposing of most of its excess facilities while the DOE Office of Environmental Management (EM) is responsible for disposition of "process contaminated" facilities (those with structural components and/or systems contaminated with hazardous chemical and/or radioactive substances). A number of facilities identified as "process contaminated" have not been evaluated or accepted by EM at this time. To confirm which facilities are eligible for transfer to EM and to determine the conditions of transfer, the DOE Excess Contaminated Facilities Working Group will develop a plan for conducting the walk down of all process contaminated facilities. The walk downs provide critical information for planning and requesting the budget necessary to address the excess facilities.

**(Action 28: NA-50) In FY 2016, NNSA will brief Congress on the challenges facing the Department with regard to infrastructure and on NNSA's new tools and metrics to better prepare decision makers for the FY 2017 budget cycle. (Complete)**

## 8. Improving Project Management

Over the past three and a half years, NNSA has delivered a $1.4 billion project portfolio approximately $70 million under its original baselined budget. NNSA has been removed from the GAO high-risk list for projects under $750 million for the fourth year in a row, and is demonstrating improved execution of larger projects. As a result of improvements that NNSA has made to project management over the past three years, NNSA has evolved, on a portfolio basis, from delivering its projects over budget to delivering them five percent under budget.

These examples represent demonstrated success in adopting proven management and industry best practices, increasing cost analysis capabilities, synchronizing program performance and accountability, and improving infrastructure and construction project management practices. NNSA is committed to working closely with Congress to improve the flow of information regarding NNSA project management performance and related challenges.

The most significant step in addressing the complex issues of the larger, high-risk projects was createing a dedicated NNSA Office of Acquisition and Project Management (NA-APM) organization in 2012. Through this organization, the Mixed Oxide Fuel Fabrication Facility (MOX) and the Uranium Processing Facility (UPF), NNSA projects on the GAO high risk list, were reviewed to determine the accuracy of cost and schedule estimates. In the case of MOX the review found that the project was over budget, a circumstance that was subsequently confirmed by several independent estimates. NNSA held the contractor accountable for the overrun by reducing the contractor's fee commensurate with their performance.

In 2012, the UPF project was forecasting a cost that would exceed the approved Critical Decision-1 range by more than 50 percent. The Office of Acquisition and Project Management helped develop a "build-to-budget" strategy including a new cost forcast that the project has maintained since 2012.

Other measures put in place to address high risk projects include requiring a design management plan and a design that is 90 percent complete before baselining the cost of the project – initiatives that were subsequently adopted across the department in a DOE Order. The Office of Acquisition and Project Management has also begun using the expertise of outside organizations including the U.S. Army Corps of Engineers and the Tennessee Valley Authority to execute standard commercial projects resulting in reduced costs through firm fixed price competitive procurements and reduced contract management overhead.

In 2013, the Secretary established a Project Management Working Group to conduct an in depth analysis of project management at DOE. The working group issued a report identifying ways in which project management could be improved. In December 2014 the Secretary issued a policy memorandum, "Improving the Department's Management of Projects," directing the Department to take several steps to bolster ongoing efforts to improve project management. These steps include strengthening the Energy Systems Acquisition Advisory Board, establishing a PMRC, clarifying the lines of responsibility, and improving the peer review process. To strengthen the independence of the project peer review process, the Secretary directed each Under Secretary to establish, if it did not already exist, a project assessment office without line

management responsibility for project execution. As a result, the Administrator created the Office of Project Assessments.

In a June 8, 2015, memorandum entitled, "Project Management Policies and Principles," the Secretary further clarified departmental policy related to areas of project management to include AoA, cost estimating, planning and scheduling, and design management, among others. The Department has revised the Project Management Order (DOE Order 413.3B) to incorporate these enhancements into the Department's project management processes and procedures. NNSA has been an integral part of the Secretary's project management improvement initiative and has implemented the recommendations. With two members on the PMRC, NNSA is ensuring that all of its work follows DOE Orders and the best practices of the Department.

NNSA reassigned the peer review reporting requirement to the Principal Deputy Administrator to ensure visibility of this important function at the most senior level. With regard to staffing, every capital asset project managed under DOE Order 413.3B has a staffing review performed as part of the Critical Decision 2 (Approve Project Baseline) process to ensure appropriately trained staff are available and assigned to the project. If appropriate staff are not available, the project's budget is adjusted to procure the necessary support from the U.S. Army Corps of Engineers and/or support service contracts.

***Acquisition and Project Management***

NNSA's Office of Acquisition and Project Management is responsible for implementing major capital construction projects and contract administration. This office is working to enhance contract and project management practices and has led NNSA's effort to deliver rigorous alternatives assessments and evaluations, as well as to improve cost and schedule performance. The Office of Acquisition and Project Management conducts monthly reviews of all construction projects in the NNSA portfolio to ensure accountability in adopting effective project management practices as specified in DOE Order 413.3B. These monthly reviews provide direct interaction among all members of the Integrated Project Team—field and program offices, project owners, Federal Project Directors (FPDs), and Acquisition and Project Management leadership, where project status is communicated in a detailed manner. Issues are identified and discussed at length, and senior project manager expertise is used to assist FPDs in the analysis of issues and concerns and in finding constructive solutions. Lessons learned are also recorded and shared with other FPDs.

The Project Integrator staff works directly with the program offices to provide expertise in the areas of the critical decision process, AoAs, requirements definition, and Acquisition Strategy as defined and required by DOE O 413.3B. Accountability for M&O partner project deliverables is being emphasized through the fee determination process and, where applicable, tailored contract fee structures. This tool has improved delivery of high quality products that meet contract requirements for the estimated cost, scope, and schedule.

***Improving Project Management Skills and Tools***

NNSA has established a program to improve project management skills and assessment of projects, which includes the following:

- NNSA completed an FPD handbook and Standard Practices on which FPDs and Project Integrators have been trained on nationally recognized best practices to strengthen their project delivery skills and knowledge.
- NNSA FPD information technology tools provide readily accessible processes, templates, dashboards, standard practices, and best practices to the FPDs and teams in the field supporting the delivery of projects.
- NNSA has developed standardized Enterprise Project Configuration Management Process, Work Breakdown Structure (WBS), and Data Item Descriptions.
- NNSA has developed and tested a standardized "Click-and-View" WBS Tool that includes WBS, WBS Dictionary, Organization Breakdown Structure, Project Cost Estimate, and other capabilities.

NNSA has developed a robust project review capability that closely follows the approach used by the DOE Office of Science, which includes the following:

- A schedule developed at the end of each fiscal year showing when each project will have its review.
- A review plan that includes the charge memorandum from the Project Management Executive; a schedule for when review preparations need to be completed; the schedule for the onsite portion of the review; templates for both the out brief and the review report; and roles and responsibilities during the review for the FPD, Review Committee Chair, Sub-committee leads, and other participants.
- An internal guide on how to conduct reviews that incorporates the lessons learned from each review, and provides steps to conduct a successful internal review.

To ensure that reviews maintain their independence and comply with the Secretary's June 2015 Policy memorandum, the Director of the Office of Project Assessments reports to the Principal Deputy Administrator and provides monthly briefs on the results of reviews and the plan for upcoming reviews.

***Independent Analysis of Alternatives***

Consistent with the Department's recently instituted policy, NNSA conducts an independent AoA for all projects estimated to cost $10 million or more prior to selecting an alternative at Critical Decision 1. In the revised AoA process, NNSA evaluates all options, including capital construction, the use of public-private partnerships, and other alternatives. This evaluation includes life-cycle cost analyses that take into account all relevant cost drivers, including whether alternative financing may be appropriate based on relevant Federal policies.

## 9. Enhancing Cost and Resource Analysis Capabilities

NNSA established the Office of CEPE, patterned after the Office of the Secretary of Defense's (OSD) Cost Assessment and Program Evaluation (CAPE), to provide independent, data-driven analysis on all aspects of the nuclear security enterprise, leading to better mission planning,

budgeting, and performance. This office represents a key capability in NNSA's revitalized PPBE process. Established in September 2014, the office currently has 10 Federal staff, including a permanent SES director.

CEPE is building capability to oversee and validate the sufficiency of the AoA process for major programs and projects, which will in turn serve as the basis for validating program requirements and assessing costs. CEPE cost estimators conducted an independent cost estimate on the B61-12 LEP and the W88 Alteration in support of their Phase 6.4 milestones in 2016 and 2017, respectively.

Additionally, CEPE provided fiscal guidance for the FY 2017 budget request, led the FY 2017-21 program review, and integrated all program budget submissions. Finally, CEPE provided oversight on and independently assessed the sufficiency of the execution of several AoAs for capital asset construction projects.

CEPE has authored policies delineating responsibilities for independent cost estimates and operating procedures for AoAs and technology readiness assessments. These policies and associated operating procedures will be mandatory for designated programs and projects and will incorporate recognized best practices, such as the GAO 22 best practices for conducting an AoA.

CEPE and the program cost offices will work together to establish an NNSA-wide Federal cost analysis capability to ensure that requirements, policies, processes, and procedures are uniform across all NNSA cost estimates. CEPE and the relevant program cost offices will review their estimates to provide the Project Management Executive credible and transparent insight on risk, cost, and schedule for programs, including LEPs.

CEPE's formation, implementation, and processes were coordinated with OSD-CAPE. To improve technical competency, CEPE cost estimation staff spend a year on detail to OSD CAPE to learn and adapt established DoD resource analysis capabilities to the NNSA mission. CEPE program evaluation staff are also executing a set of FY 2018 focused front-end assessments that include coordinated involvement, input, and peer review from OSD CAPE analysts. CEPE expects to grow cost analysis and resource management capabilities from the current strength of 10 Federal employees to approximately 18 over the next several years.

**(Action 29: NA-1.3) NNSA will issue policy and procedures for conducting AoAs and independent cost estimates and their associated reporting requirements by early FY 2017.**

## 10. Simplifying Budget and Accounting Structures

NNSA has taken a number of steps to simplify its budget structure, reduce the number of internal accounting codes, and implement improvements in financial integration across the nuclear security enterprise. In particular, NNSA has reduced the number of internal budget and reporting codes by 30 percent since 2011. NNSA will continue to reduce the number of codes where possible, especially codes with little to no associated funding, while maintaining sufficient visibility into program and project performance.

The President's FY 2016 budget realigned all NNSA funding for preventing, countering, and responding to global nuclear dangers under the Defense Nuclear Nonproliferation appropriation, strengthening existing collaborations within these mission areas.

The Department is also working to improve the quality and consistency of financial information tracked across the enterprise. Improved data will provide cost estimators, program managers, senior leaders, and oversight functions with the insight needed to support analysis and decision-making and will demonstrate confidence in NNSA's sound stewardship of taxpayer dollars.

NNSA will continue the effort to reduce the number of budget control lines for the major program and mission-support functions. An excessive number of control points, beneath the congressional control points, restrict the laboratories' and plants' ability to effectively manage operations due to the effort and time delays in shifting funds to meet changing needs.

## C. Strengthening the Relationship with Management & Operating Partners

Properly constructed and managed M&O contracts provide necessary flexibility without imposing overly burdensome requirements and allow M&O partners to deliver world-class results. The Federal and M&O contractor relationship should be one in which the interests of both parties are negotiated, integrated, and aligned through appropriately structured contracts and contract incentives, taking into account NNSA's diverse missions (e.g., science, production, testing) and other business factors.

The Department is working through the DOE LOB, Laboratory Policy Council, NNSA Council, and Operations Board to improve performance, communication, and decision-making and evaluate the strategic direction of the nuclear security enterprise. To maximize this partnership and reinvigorate the FFRDC relationship with its M&O partners, NNSA is improving laboratory stewardship and long-term strategic planning, improving contract structures and incentives, strengthening Laboratory Directed Research and Development (LDRD), and mitigating burdensome requirements.

### 1. Improving Stewardship and Long-Term Strategic Planning for the Laboratories

DOE has established a Laboratory Planning Working Group, convened by the Under Secretary for Science and Energy to create a framework for consistent laboratory planning processes. As part of this effort, NNSA and the applied energy offices will develop their planning processes using core elements and attributes from the lab planning process used by the Office of Science. A key priority for programs and Under Secretarial offices is to ensure that these annual planning efforts provide senior-level vision and direction and integrate efforts rather than simply adding another process or review.

NNSA has established a laboratory strategic planning function in the NNSA Office of Policy. The new planning function will be of mutual benefit to NNSA and the laboratories and will not duplicate existing mission-focused plans. NNSA will work with each of the laboratory directors, Headquarters program managers, and NNSA FOMs to establish this new process. There will be an annual high-level strategic discussion where each laboratory director presents his or her strategic vision.

NNSA and the laboratory directors held the first meeting to establish this process in January 2016. The feedback from the meeting was formulated into the process that was piloted in FY 2016. The objectives of the planning process are to:

- Strengthen the partnership and trust between NNSA and the national security laboratories;
- Facilitate high-level discussions on the health of the laboratories to enable joint understanding and advocacy for long-term lab stewardship; and,
- Close the gaps in the current program and functional planning processes.

In 2016 NNSA conducted three lab strategic planning meetings between each laboratory director and their senior managers with the senior federal field, program and functional office managers. Senior DOE leadership from the Office of the Secretary, Office of the Undersecretary for Science and Energy and Environmental Management were also in attendance. A fourth, integrated meeting with all three laboratory directors in attendance was conducted in November 2016 to discuss common issues and to agree upon the process to be used in subsequent meetings. All laboratory strategic planning meetings are chaired by the NNSA Principal Deputy Administrator.

Over time this practice should improve communication and problem identification and result in more focused, timely solutions to problems, including aging infrastructure. NNSA may expand this process to the other NNSA sites in the future.

**(Action 30: NA-1.1) NNSA will host individual laboratory strategic planning sessions followed by a joint session with all three national security laboratories in 2016. (Complete)**

## 2. Improving Contract Structures and Incentives

M&O contractors manage and operate disparate activities, ranging from research and development to industrial production. It has become increasingly evident that the same incentive structure does not work for all M&O contracted activities, and that significant divergences exist between legislation and regulatory structures of the NNSA national security contractors and the much-larger bulk of the nation's security apparatus.

NNSA has been reviewing M&O contract structures, incentives, and performance evaluation processes to identify improvements that emphasize mission performance and improve the partnership with the M&O community. NNSA has engaged M&O counterparts and their corporate parents in this process through surveys and face-to-face meetings to ensure understanding of their perspective while maintaining a proper Federal stewardship posture.

NNSA is developing an overarching M&O acquisition planning guide that will include contract structure and incentive guidance for use when each M&O contract is re-competed. The planning guide will identify the appropriate mix of incentive and fixed fees in NNSA contracts and will be implemented starting with the procurement for the Sandia National Laboratory contract. Related changes to existing contracts and performance evaluation processes are also being considered.

**(Action 31: NA-APM) An M&O acquisition plan will be completed and implemented starting with the Sandia National Laboratories contract competition. (Complete)**

## 3. Strengthening Laboratory Directed Research and Development

The LDRD Program is an important source of capability investment at each of the three NNSA laboratories. LDRD is managed as a cost that is collected as a separate assessment (percentage) charged on the national security laboratories' operating budget. This practice is based on the premise that LDRD is an investment toward keeping the laboratories vibrant, cutting edge, and creative in ideas and new fields, thereby benefiting all program work at a laboratory. Congress capped the percentage of LDRD in FY 2014 at six percent. The total FY 2015 LDRD Program spending at NNSA laboratories was $344 million, which represents 5.3 percent of the total cost base at these laboratories.

All LDRD activities conducted at the DOE laboratories are governed by DOE policy (DOE Order 413.2C, *Laboratory Directed Research and Development*), which provides guidance to ensure effective management and oversight of the LDRD Program. DOE Order 413.2C also supports the laboratories' statutory authority to pursue innovative, self-selected projects in support of the DOE mission. DOE's LDRD policy is consistent with the Department's management practices for all research and development activities in that it includes annual planning and reporting requirements, as well as program and peer reviews. DOE must concur with each proposed LDRD project before a laboratory commences work to ensure the project complies with Departmental policy.

Reviews by the Governance Panel, CRENEL, and other advisory bodies have shown strong support for the LDRD Program. These entities have made numerous recommendations to enhance the program, including increasing the amount of funding available for LDRD, sharing best practices among the NNSA laboratories to improve overall quality and impact, and to better communicate the value of the program. NNSA will also coordinate amongst the three Under Secretaries to enhance the reporting on the substance and value of the LDRD program.

**(Action 32: NA-10) The Department will establish a best practices process in FY 2016 to help laboratories improve the flow of outcomes from LDRD to missions. (Complete)**

**(Action 33: NA-10) In 2016, the Department will provide LDRD Highlights that were last published in 2011. NNSA will also share the individual annual laboratory reports with Congress and provide an annual briefing for members on the benefits realized from LDRD investments.**

The *FY 2016 NDAA* increased funding for LDRD with a minimum rate of five percent and a maximum of seven percent of the national security laboratories' operating budget. For FY 2017, NNSA plans to approve LDRD program plans with the new funding range to benefit the overall laboratory strategic direction. The explanatory statement accompanying the *FY 2016 Omnibus Appropriations Act* directs the Secretary of Energy to report on the effects of burdening LDRD funds and provide recommendations on legislative changes to address the CRENEL final report.

**(Action 34: NA-10) As required by the *FY 2016 NDAA*, NNSA will brief the congressional defense committees in FY 2016 on the following. (Complete)**

- **All recent or ongoing reviews of the LDRD program, including such reviews initiated by the Secretary of Energy;**
- **Costs and accounting practices associated with LDRD; and,**
- **How LDRD projects support the nuclear security mission.**

## 4. Mitigating Burdensome Practices

The SEAB National Lab Task Force identified a number of business practices that should be revised in order to streamline approval, increase efficiency, and reduce the effort and burden these practices place on the M&O community. Changes to these business practices are outlined below.

**Compensation:** NNSA will no longer require federal approval of the annual Compensation Increase Plan (CIP) when the requested increase is equal to or less than the widely recognized salary increase projections (e.g. World at Work) and implementation of the CIP does not result in an overall over-market salary position. Also, NNSA approval is no longer required for any salary structure adjustments that do not exceed the recognized salary budget survey's mean structure adjustments projected for the CIP year.

**(Action 35: NA-APM) NNSA will issue new compensation management guidance in FY 2016. (Complete)**

**Labor Negotiations:** Prior to the commencement of collective bargaining the contracting officer (CO) will communicate the total approved, aggregate cost threshold for the collective bargaining. Once the aggregate threshold is determined, no further approval of economic parameters is required unless (1) the changes would exceed the aggregate figure, or (2) the changes proposed are contrary to Departmental policy or negotiation guidance. Advance written notification to the CO is required for all changes for which approval is not required. This streamlined approval process will provide M&O contractors appropriate flexibility in the course of negotiations while ensuring that NNSA manages in compliance with DEAR 970.2201-1, "Basic Labor Policies." DEAR 970-2201-1 charges NNSA with assuring the "judicious expenditure of public funds" through reviewing the alignment of wages, salaries and benefits with private industry and institutions of higher education.

**(Action 36: NA-APM) NNSA will issue new labor negotiation guidance in 2016.**

**Benefits:** NNSA eliminated the need for prior approval of new or revised benefit plan changes with the exception of changes that result in increased costs. As a result, M&O partners save time in preparing approval packages for lower-risk benefits and the cost of coordinating with their Benefit Value consultant on each change to obtain an impact assessment on the Benefit Value index. Although approval is not required, advance written notification to the CO is still necessary for all proposed changes.

**Pension Plan Payments:** NNSA has long allowed alternative funding requests, over the legally required minimum payment, for pension contributions with the approval of the Principal Deputy Administrator when in the best interests of the government. More recently, NNSA has looked at multi-year funding strategies, which address concerns related to the timing of approvals. Contribution amounts can be adjusted each year (as necessary) through the Pension Management Plan process.

**Reviews/Approvals of Subcontracts:** NNSA uses a risk-based approach, establishing review and approval thresholds through the M&O partner's purchasing system, which is then approved by the field administrative CO. When a subcontract meets the threshold requiring approval, NNSA follows the "Acquisition Coordination and Approval Process" that is set forth in NNSA Business Operating Procedure 03.03, dated March 18, 2015. The administrative CO incorporates procuring CO feedback into his/her review, providing for one feedback cycle to the M&O partner with one NNSA voice. It is then forwarded for an approval from the Head of the Contracting Activity.

**Conference Management**: The Department has taken efforts to refine the existing processes for conference management and approvals, including streamlining administrative actions and reducing transactional oversight while meeting all legal requirements and maintaining appropriate management controls to ensure cost-effectiveness. The CRENEL Commission noted that it is "encouraged by both DOE's updated guidance and the laboratories' involvement in the revision process." NNSA has modified its contracts to incorporate the recent revised guidance.

**Legal Counsel:** DOE engaged in a notice-and-comment rulemaking in 2011-2013 that resulted in the publication of a revised regulation governing contractor legal management requirements for the retention of outside counsel. The revised regulation was designed to provide effective monitoring and control of legal costs and went into effect July 2, 2013.

**Improving Coordination of Site Reviews, Site Visits, and data calls:** NNSA is implementing a revised process to centralize and better coordinate and control internal and external oversight activities and reviews at NNSA sites (i.e., a "clearinghouse"). Congressionally-directed reviews, reviews by the Office of Inspector General, Government Accountability Office (GAO), and others specifically exempted by the Principal Deputy Administrator will be excluded from this effort. A senior Federal manager will be assigned to ensure planned reviews and visits are not duplicative and are coordinated with other activities to the extent practicable. All NNSA-directed reviews will be coordinated and scheduled through the SIAP process except for those that by design must be unannounced. The senior Federal manager will coordinate with

external organizations to obtain insight into planned visits as appropriate.

NNSA is taking a number of actions to facilitate collection of appropriate data, and reduce the impacts of data calls on its plants and laboratories. The Office of Acquisition and Project Management will provide guidance on the contract requirements and authorities necessary for personnel to approve and issue data calls to NNSA plants and laboratories. A single, executive-level point of contact will serve as a liaison between NNSA field offices and other organizations within DOE as necessary to minimize and streamline data calls, particularly those that are not authorized through appropriate, contract channels. NNSA is developing a comprehensive list of recurring reports and the content of such, to establish a baseline as an initial screening and consideration for use in answering any request. Finally, NNSA Headquarters offices will internally evaluate, streamline and integrate any necessary data calls and ensure that any data calls follow the appropriate contract terms and conditions, as well as NNSA policies and procedures.

**(Action 37: NA-MB/50) The process to improve the coordination of external reviews and visits will be fully implemented in 2016.**

**(Action 38: NA-1/APM) The process to improve the coordination of data calls will be fully implemented in FY 2017.**

# D. Improving External Relationships

NNSA's execution of its diverse missions is enabled by a number of partnerships and collaborations with external U.S. Government departments and agencies. These partnerships must be continuously monitored and managed to ensure long-term success in the full suite of NNSA's national security missions.

## 1. Strengthening Program Alignment with DoD

DoD and NNSA share responsibility for the nuclear weapons stockpile through the congressionally chartered NWC. This council is made up of four senior DoD members and the NNSA Administrator. The NWC is the central mechanism by which the DoD and NNSA manage interagency priorities and establish nuclear modernization objectives.

NNSA's Office of Defense Programs works through the NWC Standing and Safety Committee to develop and implement the NWC Baseline Strategic Plan. This comprehensive effort supports the DoD/DOE nuclear modernization strategy through development of a long-range strategic plan that aligns DOE and DoD programs through 2040.

- The NNSA Deputy Administrator for Defense Programs serves as the Nuclear Weapon Council Standing and Safety Committee co-chair. The Principal Assistant Deputy Administrator for Military Applications is the primary point of contact for DoD counterparts in the Military Departments.
- The NWC Action Officers Group meets regularly and acts on behalf of their respective Council members on all NWC-related business.

- Weapon system Project Officer Groups (POG), chaired by a representative of the Air Force or Navy, meet regularly to address technical issues that affect safety, security, and effectiveness of their respective nuclear warheads and related delivery systmes. DOE Federal and laboratory staff are active members of each POG.

The NWC is also responsible for developing, coordinating, and delivering three classified annual reports on the nuclear deterrent to the President, including the Report on Stockpile Assessments (ROSA), the Joint Surety Report, and the Nuclear Weapons Stockpile Plan, all of which are signed by the Secretaries of Defense and Energy.

- The ROSA certifies to the President that the stockpile is safe, secure, and reliable and makes recommendations regarding the need for underground nuclear explosive testing. Each national security laboratory director and the STRATCOM Commander is statutorily required to submit independent assessments as part of this process.
- The Joint Surety Report provides an assessment by the Secretary of Energy and the Secretary of Defense on the Nation's nuclear weapons safety, security, control, emergency response, and inspection and evaluation programs.
- The Nuclear Weapons Stockpile Plan provides an annual strategic plan to the President on the future state of the stockpile.

**(Action 39: NA-10) NNSA will coordinate a briefing by the three laboratory directors and the STRATCOM Commander for the NWC concerning respective assessment letters and offer a briefing by the laboratory directors to the Secretary of Defense and Secretary of Energy. (Complete)**

## 2. Strengthening Interagency Collaboration

In addition to DoD, NNSA also fosters partnerships with the Departments of State, Homeland Security, Commerce, and Treasury, as well as the Intelligence Community and NASA. NNSA's strategic partnership projects, formerly known as "Work for Others", support improved conventional warfighting capabilities, responses to nuclear and radiological threats, and analysis of foreign developments and trends. These collaborations benefit not only interagency partners but also NNSA as an important draw for recruiting and retaining scientists, engineers, and other professionals to support NNSA and the broader national security missions.

NNSA's Office of Strategic Partnership Programs oversees execution of the interagency work and assists in identifying opportunities to improve the overall process. External reviews have been uniform in calling for a streamlined interagency process, which has been described as "lengthy" and "burdensome;" the Federal review and approval portion of the process has now been reduced to less than five days on average.

The Office of Strategic Partnership Programs has created a task force of M&O and Federal personnel to further improve strategic partnership projects (SPP) processes and procedures. The task force will undertake an in-depth review of the current process to identify efficiencies and conduct an analysis of other mechanisms to approve work, including umbrella agreements and a review of appropriate metrics. In addition, under the leadership of the LOB, the

Department established a community of practice on SPP to ensure communication of best practices across the enterprise. The community of practice held its first annual SPP summit in March 2015 and continues to meet to discuss ways to enhance collaboration and streamline processes.

**(Action 40: NA-10) NNSA expects to implement proposed changes to the SPP approval process in 2016.**

The Office of Strategic Partnership Programs is working to address a number of challenges in obtaining agency approvals for SPP and establishing interagency agreements on the required work scope, cost, and schedule expectations. Many of these challenges can be attributed to the piecemeal nature of the work due to budget pressures, the lack of a strategic approach, and differences in priorities among agencies.

In 2010, the Secretaries of Energy, Defense, and Homeland Security and the Director of National Intelligence began to address these challenges with the establishment of the Mission Executive Council (MEC), which is identifying strategic priorities and critical capabilities to address enduring national security challenges and potential technological surprises. The stewardship and long-term planning process for the laboratories will inform this process.

The MEC agenda is driven by the MEC member mission needs in the form of a technical question to relevant capability providers, including DOE laboratories, plants, and sites. These key technical questions offer descriptions of ongoing and new national security objectives and identify critical capabilities, including facilities and equipment. The MEC creates Working Groups championed by MEC Members to resolve these key technical questions and potential capability gaps. This approach and dialogue is showing promise and will result in an actionable MEC strategic framework on specific activities for the MEC Members to execute.

**(Action 41: NA-10) An actionable strategic framework to guide MEC activities is expected to be in place by late 2016.**

While the task force will address issues at the tactical and strategic levels, the MEC remains the most viable option for strategic planning with respect for critical capabilities for the Member agencies.

# IV. Conclusion

Many of NNSA's initiatives concerning the governance and management of the nuclear security enterprise are completed or well underway. A list of all actions and commitments (both pending and completed) are tabulated in Attachment 1 for reference. Consistent communication and top-to-bottom involvement and ownership of the mission are the keys to the long-term success of the enterprise.

Responsibility for actions in this implementation plan has been assigned to career SES managers in enduring leadership positions who will span the transition to the new Administration. These

career SES managers report directly to the NNSA Administrator, who is committed to ensuring that actions are tracked and performance indicators are continuously evaluated.

NNSA will continue to partner with the independent panel of experts from the National Academy of Sciences and the National Academy of Public Administration in assessing and reporting on NNSA progress in implementing this plan. With the national and global nuclear security mission as the driver of its work, NNSA will harness the energy and talent of its Federal employees and M&O partners to implement these improvements, ensuring reliable mission performance well into the future.

# Attachment 1

## Governance and Management Actions and Commitments

| No. | Report Section | Action | Responsibility |
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| 1 | Strengthening National Leadership | NNSA will continue to deliver educational briefings to congressional members and staff. These briefings will expand in 2016 and will continue through the transition to the next Administration. | NA-1.1 |
| 2 | Clarifying Roles, Responsibilities, and Authorities | NNSA will begin periodic enterprise-wide meetings for contracting officers and Contractor Human Resources personnel in FY 2016. **(Complete)** | NA-APM |
| 3 | Clarifying Roles, Responsibilities, and Authorities | NNSA will update organizational mission and function statements in FY 2017. | NA-MB |
| 4 | Clarifying Roles, Responsibilities, and Authorities | NNSA will prepare a plan by late 2016 to streamline the NNSA policy process and identify the policies that need to be created, revised, or eliminated. | NA-MB |
| 5 | Clarifying Roles, Responsibilities, and Authorities | NNSA will issue the MSD in FY 2017. | NA-MB |
| 6 | Strengthening Risk Management | The Initial Risk Profile will be in place in FY 2017. | DOE |
| 7 | Strengthening Risk Management | In FY 2017, NNSA will conduct a performance-based effectiveness review of the revised NES directives and make any additional revisions as warranted. | NA-50/ NA-10 |
| 8 | Strengthening Risk Management | In 2016, NNSA worked with other DOE offices and the DNFSB on a process to better plan and collaborate on nuclear project design reviews. | NA-APM<br>NA-50 |
| 9 | Strengthening Risk Management | NNSA will assist other DOE offices in the development of an Accident Analysis Handbook. | NA-50 |
| 10 | Strengthening Risk Management | In FY 2016, NNSA implemented a revision to the SBPP that expands it to include a continuous training program for the incumbent workforce. **(Complete)** | NA-50 |
| 11 | Continuous Improvement | NNSA will develop a communication strategy in FY 2017 to ensure that Federal employees and other stakeholders are knowledgeable of | NA-1.1 |

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| | | the G&M Implementation Plan initiatives, intent and priorities. | |
| 12 | Continuous Improvement | The Secretary and the Administrator will join with the IAP in reporting to Congress on progress being made to improve governance and management of the NNSA, as required by the *FY 2016 NDAA*. | NA-1.1 |
| 13 | Implementing Effective and Efficient Field Oversight | The new site governance documents will be in place by the end of 2016. | NA-50, FOMs |
| 14 | Implementing Workforce Best Practices | NNSA is committed to maintaining the future training budget at a sufficient level to accommodate Federal training needs. | NA-MB |
| 15 | Implementing Workforce Best Practices | The HCMP will be issued in FY 2017. | NA-MB |
| 16 | Implementing Workforce Best Practices | NNSA will be prepared to brief the staffing analysis results to external stakeholders in 2017. | NA-MB |
| 17 | Improving Program Management and Integration | NNSA will update internal Office of Defense Programs program management policy and procedures in FY 2017. | NA-10 |
| 18 | Improving Program Management and Integration | NNSA will implement the two-phase training program by the first quarter FY 2018. | NA-10 |
| 19 | Sustaining Base Capabilities in the Enterprise | In 2016, NNSA will conduct a review of specific capabilities required to meet strategic commitments and to understand how these capabilities and their associated capacities drive infrastructure demands. **(Complete)** | NA-1.3 |
| 20 | Sustaining Base Capabilities in the Enterprise | In 2016, NNSA will finalize the MDI tool to measure the consequence of asset failure. **(Complete)** | NA-50 |
| 21 | Sustaining Base Capabilities in the Enterprise | In 2016, NNSA will migrate existing asset inventory and condition data to the BUILDER tool to improve understanding of an asset's likelihood of failure. **(Complete)** | NA-50 |
| 22 | Sustaining Base Capabilities in the Enterprise | In 2016, NNSA will increase the use of the award-winning G2 Program Management System to track all infrastructure scope, schedule, and cost metrics. | NA-50 |

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| 23 | Sustaining Base Capabilities in the Enterprise | In 2016, NNSA will expand the use of AMPs that increase NNSA's buying-power by consolidating the procurement of building systems that need to be replaced throughout the enterprise (e.g., roofs, HVACs) under a single strategic contract vehicle. | NA-50 |
| 24 | Sustaining Base Capabilities in the Enterprise | In 2016, NNSA will conduct MAP Deep Dives at all sites **(Complete)** leading to the production of the first NNSA MAP. | NA-50 |
| 25 | Sustaining Base Capabilities in the Enterprise | In 2016, NNSA will begin reporting of indirect infrastructure funding to better understand the full cost of NNSA infrastructure operations and maintenance. **(Complete)** | NA-50 |
| 26 | Sustaining Base Capabilities in the Enterprise | Consistent with the direction from the Secretary related to this effort, NNSA aims to ensure that in FY 2016, absent unforeseen events, there will be no increase in the deferred maintenance backlog above the FY 2015 end-of-year deferred maintenance level of $3.7 billion. | NA-50 |
| 27 | Sustaining Base Capabilities in the Enterprise | In 2016, NNSA will dispose of two high-risk, contaminated facilities at Los Alamos National Laboratory and position the Bannister Road property in Kansas City for transition to the private sector. | NA-50 |
| 28 | Sustaining Base Capabilities in the Enterprise | In FY 2016, NNSA will brief Congress on the challenges facing the Department with regard to infrastructure and on NNSA's new tools and metrics to better prepare decision makers for the FY 2017 budget cycle. **(Complete)** | NA-50 |
| 29 | Sustaining Base Capabilities in the Enterprise | NNSA will issue policy and procedures for conducting AoAs and independent cost estimates and their associated reporting requirements by early FY 2017. | NA-1.3 |
| 30 | Improving Laboratory Stewardship and Long-Term Strategic Planning | NNSA will host individual laboratory strategic planning sessions followed by a joint session with all three national security laboratories in 2016. **(Complete)** | NA-1.1 |
| 31 | Improving Contract Structures and Incentives | An M&O acquisition plan will be completed and implemented starting with the Sandia National Laboratories contract competition. **(Complete)** | NA-APM |

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| 32 | Strengthening Laboratory Directed Research and Development | The Department will establish a best practices process in FY 2016 to help laboratories improve the flow of outcomes from LDRD to missions. **(Complete)** | NA-10 |
| 33 | Strengthening Laboratory Directed Research and Development | In 2016, the Department will provide LDRD Highlights that were last published in 2011. NNSA will also share the individual annual laboratory reports with Congress and provide an annual briefing for members on the benefits realized from LDRD investments. | NA-10 |
| 34 | Strengthening Laboratory Directed Research and Development | As required by the *FY 2016 NDAA*, NNSA will brief the congressional defense committees in FY 2016 on: (1) all recent or ongoing reviews of the LDRD program, including such reviews initiated by the Secretary of Energy; (2) costs and accounting practices associated with LDRD; and (3) how LDRD projects support the nuclear security mission. **(Complete)** | NA-10 |
| 35 | Mitigating Burdensome Practices | NNSA will issue new compensation management guidance in FY 2016. **(Complete)** | NA-APM |
| 36 | Mitigating Burdensome Practices | NNSA will issue new labor negotiation guidance in 2016. | NA-APM |
| 37 | Mitigating Burdensome Practices | The process to improve the coordination of external reviews and visits will be fully implemented in 2016. | NA-50 |
| 38 | Mitigating Burdensome Practices | The process to improve the coordination of data calls will be fully implemented in FY 2017. | NA-1/APM |
| 39 | Strengthening Program Alignment with DoD | NNSA will coordinate a briefing by the three laboratory directors and the STRATCOM Commander for the NWC concerning respective assessment letters and offer a briefing by the laboratory directors to the Secretary of Defense and Secretary of Energy. **(Complete)** | NA-10 |
| 40 | Strengthening Interagency Collaboration | NNSA expects to implement proposed changes to the SPP approval process in 2016. | NA-10 |
| 41 | Strengthening Interagency Collaboration | An actionable strategic framework to guide MEC activities is expected to be in place by late 2016. | NA-10 |

# Attachment 2

## Governance and Management Implementation Assessment Panel (IAP)

The National Academy of Sciences and the National Academy of Public Administration have formed an IAP to fulfill the requirement of the *FY 2016 NDAA* to: (1) provide guidance to the Secretary and Administrator on the G&M Implementation Plan, (2) track the implementation of its governance and management reforms, and (3) assess the effectiveness of these reforms.

As directed by the FY *2016 NDAA*, the IAP's work will focus on (1) tracking the implementation of recommendations that do not require legislative action and (2) determining whether these recommendations are having the effect envisioned by the Governance Panel. The IAP will issue its first report, an initial assessment of the G&M Implementation Plan, and brief its content to the Secretary, Administrator, and the appropriate congressional committees. The IAP will provide semi-annual reports on progress in implementing the plan, with associated briefings beginning on February 28, 2017. The IAP is scheduled to release a final report on the G&M Implementation Plan, including the effectiveness of reform efforts and any required additional initiatives, by September 30, 2020.